RAILROAD

MAGAZINE | APRIL 50c

CANADIAN NATIONAL EXPANDS

by C. M. WILSON

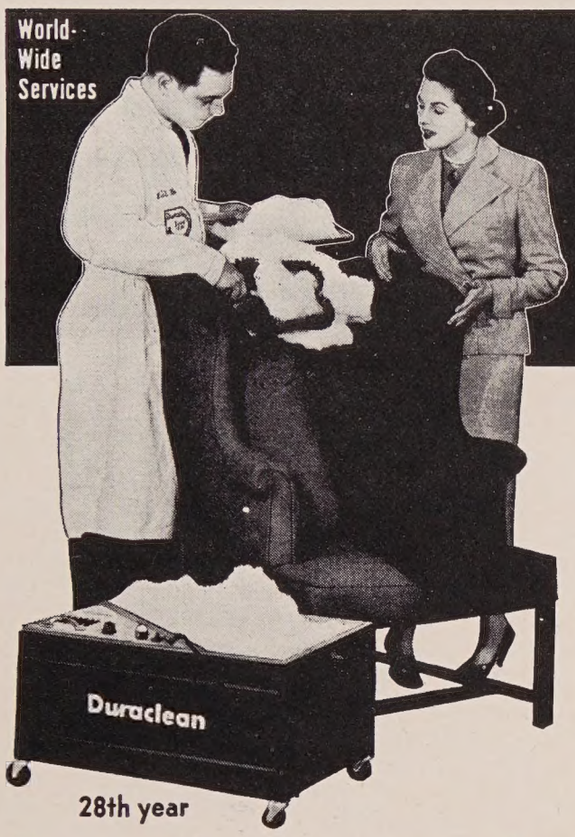
Rail Operation by Radio

by PETER JOSSERAND

DOUBLE-ENDED LOCOMOTIVES

by H. L. KELSO

• We will show you how to earn $8,750 PROFIT first year on just two jobs a day. We furnish all equipment and supplies . . . personally train you in your town to run:



Your OWN Nationally-Advertised Business

YOU BECOME AN EXPERT IN THE CLEANING & PROTECTING OF RUGS & UPHOLSTERY

Even if you are now employed you may start enjoying the prestige and financial independence of your OWN business. We are ready to expand our world-wide organization and offer an unusual lifetime opportunity to reliable and diligent men. You will be trained in your town by a Duraclean dealer, who will reveal the Duraclean System and plans for building business. He will help you get quickly established. Just 2 average jobs a day earns **$8,750 NET profit first year.** Employ others and MULTIPLY profits. Business grows from recommendations and repeat orders. Under our guidance you become an expert in the care of rugs and upholstery, a profession for which there is now great demand. Easy to learn. We furnish everything required. No shop needed.

Even if now employed you can start from home!

WE PROVIDE 25 SERVICES TO HELP YOU BUILD BUSINESS

These are full-time dealerships, but you can start part-time from home. All work is done with **portable** equipment in homes, offices, hotels, institutions and to revive used car upholstery for auto dealers. Furniture stores, cleaning shops, etc., turn over work to you. We work with you 12 months of the year and provide 25 regular services to help you build business: **National Advertising** in McCall's, House & Garden, a dozen others. **Products Insurance, Complete Advertising Kit** including cuts, mats, folders, radio & TV musical recording. **Publicity Program** gets free local newspaper stories. **Monthly Magazine. Sales Book. National and Regional Conventions. Prizes. Pocket Demonstrators.** Many others.

COMMENDED BY THE CONSUMER SERVICE BUREAU OF PARENTS' MAGAZINE AS ADVERTISED THEREIN

1st Process to Win This Honor

Your services are backed by this famous seal of quality, proof that Duraclean has passed rigorous tests. (First in field to do so!) Duraclean also bears the Tester-Certified Seal of the American Research & Testing Laboratories.

5 WAYS TO MAKE MONEY

A Duraclean Dealership qualifies you to offer **five** different services. Thus on many jobs you **multiply** profits.

1. **DURACLEAN:** Unique ABSORPTION process for cleaning rugs, carpets, upholstery. Recommended by leading stores and manufacturers. No scrubbing, soaking, shrinkage. Aerated foam manufactured by portable electric Foamovator safely removes dirt, grease, unsightly spots. Dries so fast customers use furnishings in few hours.

2. **DURASHIELD:** soil-retarding treatment that KEEPS furnishings clean MONTHS longer. So new you may be the **first in town** to offer this type service.

3. **DURAPROOF:** Protects against damage by moths, carpet beetles. Only such treatment backed by an International 6-year Warranty!

4. **DURAGUARD:** Another new service exclusively developed for Duraclean dealers. A flame-proofing treatment which reduces fire damage by retarding charring and the tendency of fires to flame up. Theaters, restaurants, and hotels, as well as homes, offer a huge potential.

5. **SPOTCRAFT:** Special chemical products which enable you to handle most all spot or staining problems means extra business, greater customer satisfaction, and added prestige for you as a professional craftsman.

EASY TERMS

A moderate payment establishes your own business—pay balance from sales. If needed, we help finance you. We furnish electric machines, complete sales and advertising material and enough supplies to return your TOTAL investment.

Send for FREE Booklets

Our first letter and illustrated booklets explain the urgently needed services, waiting market, your large profit, easy terms and PROTECTED territory. Send coupon for free facts **today.**

What Dealers Say

L. B. Hayes: First month I grossed $770.17. Duraclean proved so popular, I'm now full-time.

R. N. Ritter: Seldom go under $200 per week by myself.

L. Johnson: Every customer leads to 2 or 3 more.

W. Abbott: In past 7 months I've taken in over $12,000.

M. Lassanske: Original investment returned in 2 months.

W. Lookiebill: We've had 27 years of pleasant dealings. I'm 72 but setting sights for 20 more years.

More dealer comments in our literature. Send coupon today.

Duraclean® Co. 8-704 Duraclean Bldg. DEERFIELD, ILLINOIS

"OWN a Business" Coupon

DURACLEAN CO., 8-704 Duraclean Bldg., Deerfield, Ill.

Please rush free booklets and letter giving full details of how I may OWN growing, lifetime business and start while still employed.

Name.....
(Please Print)

Address.....

City.....State.....

PUZZLE: FIND AL

Al's got himself lost in his job.

He does his work. He draws his pay. He gripes, and hopes, and waits. But the big breaks never seem to come.

You have to hunt hard for Al. He's in a rut!

Then, who's the figure standing out in the picture? That's Tom. Tom grew tired of waiting. He decided to act. He took three important steps:

1. Wrote to I.C.S. for their three famous career books.
2. Enrolled for an I.C.S. job-related course.
3. Started to apply—on the spot—what he was learning.

The others began to say, "Ask Tom, he knows." The supervisor began to take notice. The boss began to receive reports on Tom's progress. *And Tom began to move!*

It's a fact worth remembering: An I.C.S. student always stands out!

P.S.—You'll find men like Al everywhere—griping, hoping, waiting—reading this and skipping on. But forward-looking fellows like Tom will take time to investigate, will mark and mail the coupon and get the three valuable career books free. They're men of action. And a few short months from now, you'll see them start to move!

For Real Job Security—Get an I. C. S. Diploma! **I. C. S., Scranton 15, Penna.**

Accredited Member, National Home Study Council

INTERNATIONAL CORRESPONDENCE SCHOOLS

ICS

BOX 03098-B, SCRANTON 15, PENNA. (Partial list of 257 courses)

Without cost or obligation, send me "HOW to SUCCEED" and the opportunity booklet about the field BEFORE which I have marked X (plus sample lesson):

ARCHITECTURE and BUILDING CONSTRUCTION
- ☐ Air Conditioning
- ☐ Architecture
- ☐ Arch. Drawing and Designing
- ☐ Building Contractor
- ☐ Building Estimator
- ☐ Carpentry and Millwork
- ☐ Carpenter Foreman
- ☐ Heating
- ☐ Interior Decoration
- ☐ Painting Contractor
- ☐ Plumbing
- ☐ Reading Arch. Blueprints

ART
- ☐ Commercial Art
- ☐ Magazine & Book Illus.
- ☐ Show Card and Sign Lettering
- ☐ Sketching and Painting

AUTOMOTIVE
- ☐ Automobiles
- ☐ Auto Body Rebuilding and Refinishing
- ☐ Auto Engine Tuneup
- ☐ Auto Technician

AVIATION
- ☐ Aero-Engineering Technology
- ☐ Aircraft & Engine Mechanic

BUSINESS
- ☐ Accounting
- ☐ Advertising
- ☐ Business Administration
- ☐ Business Management
- ☐ Cost Accounting
- ☐ Creative Salesmanship
- ☐ Managing a Small Business
- ☐ Professional Secretary
- ☐ Public Accounting
- ☐ Purchasing Agent
- ☐ Salesmanship
- ☐ Salesmanship and Management
- ☐ Traffic Management

CHEMICAL
- ☐ Analytical Chemistry
- ☐ Chemical Engineering
- ☐ Chem. Lab. Technician
- ☐ Elements of Nuclear Energy
- ☐ General Chemistry
- ☐ Natural Gas Prod. and Trans.
- ☐ Petroleum Prod. and Engr.
- ☐ Professional Engineer (Chem)
- ☐ Pulp and Paper Making

CIVIL ENGINEERING
- ☐ Civil Engineering
- ☐ Construction Engineering
- ☐ Highway Engineering
- ☐ Professional Engineer (Civil)
- ☐ Reading Struc. Blueprints
- ☐ Structural Engineering
- ☐ Surveying and Mapping

DRAFTING
- ☐ Aircraft Drafting
- ☐ Architectural Drafting
- ☐ Drafting Machine Design
- ☐ Electrical Drafting
- ☐ Mechanical Drafting
- ☐ Sheet Metal Drafting
- ☐ Structural Drafting

ELECTRICAL
- ☐ Electrical Engineering
- ☐ Elec. Engr. Technician
- ☐ Elec. Light and Power
- ☐ Practical Electrician
- ☐ Practical Lineman
- ☐ Professional Engineer (Elec)

HIGH SCHOOL
- ☐ High School Diploma

- ☐ Good English
- ☐ High School Mathematics
- ☐ Short Story Writing

LEADERSHIP
- ☐ Industrial Foremanship
- ☐ Industrial Supervision
- ☐ Personnel-Labor Relations
- ☐ Supervision

MECHANICAL and SHOP
- ☐ Diesel Engines
- ☐ Gas-Elec. Welding
- ☐ Industrial Engineering
- ☐ Industrial Instrumentation
- ☐ Industrial Metallurgy
- ☐ Industrial Safety
- ☐ Machine Design
- ☐ Machine Shop Practice
- ☐ Mechanical Engineering
- ☐ Professional Engineer (Mech)
- ☐ Quality Control
- ☐ Reading Shop Blueprints
- ☐ Refrigeration and Air Conditioning
- ☐ Tool Design ☐ Tool Making

RADIO, TELEVISION
- ☐ General Electronics Tech.
- ☐ Industrial Electronics
- ☐ Practical Radio-TV Eng'r'g
- ☐ Practical Telephony
- ☐ Radio-TV Servicing

RAILROAD
- ☐ Car Inspector and Air Brake
- ☐ Diesel Electrician
- ☐ Diesel Engr. and Fireman
- ☐ Diesel Locomotive

STEAM and DIESEL POWER
- ☐ Combustion Engineering
- ☐ Power Plant Engineer
- ☐ Stationary Diesel Engr.
- ☐ Stationary Fireman

TEXTILE
- ☐ Carding and Spinning
- ☐ Cotton Manufacture
- ☐ Cotton Warping and Weaving
- ☐ Loom Fixing Technician
- ☐ Textile Designing
- ☐ Textile Finishing & Dyeing
- ☐ Throwing
- ☐ Warping and Weaving
- ☐ Worsted Manufacturing

Name _____ Age _____ Home Address _____

City _____ Zone _____ State _____ Working Hours _____ A.M. to P.M. _____

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RAILROAD MAGAZINE

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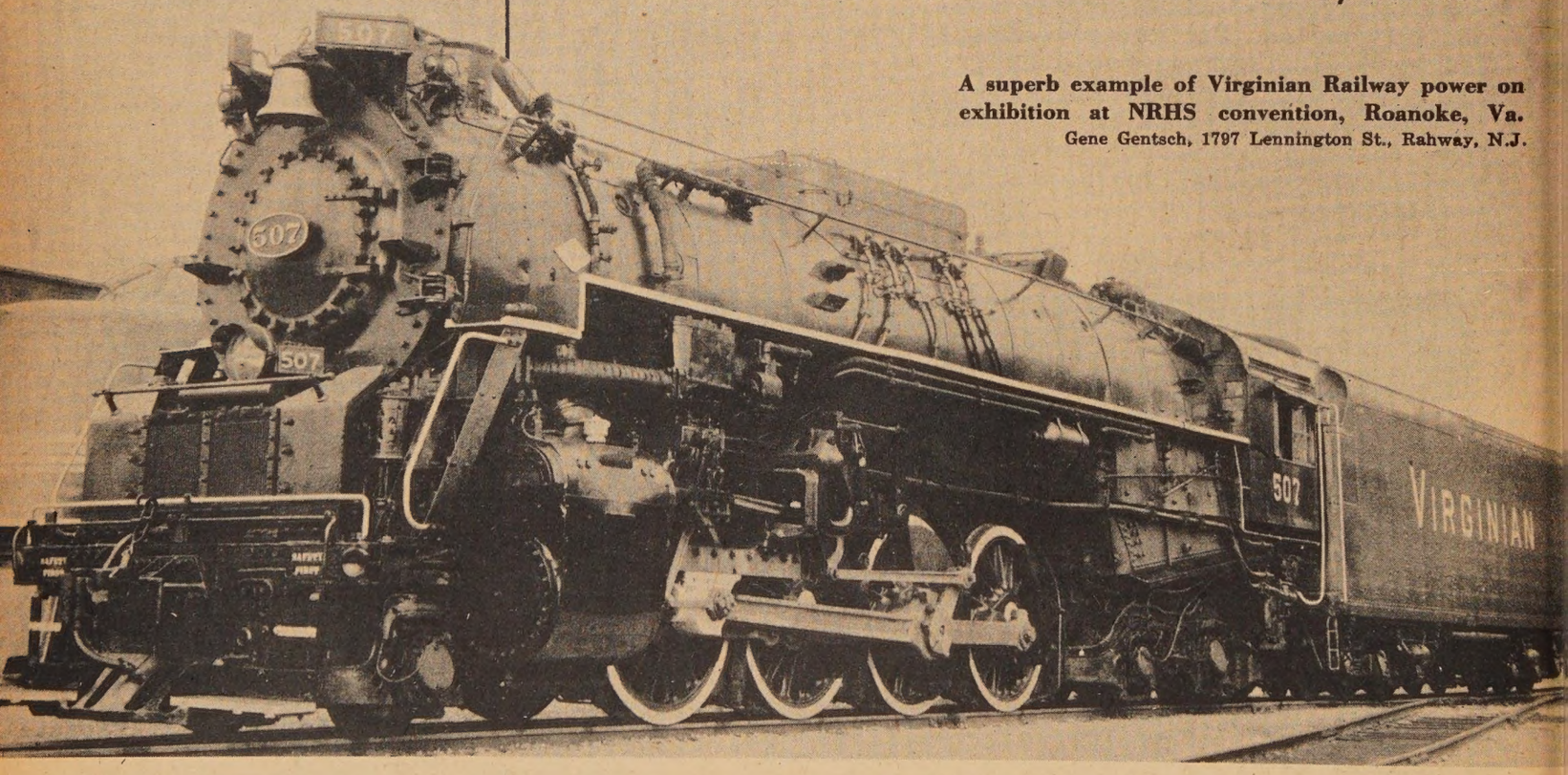

A superb example of Virginian Railway power on exhibition at NRHS convention, Roanoke, Va.
Gene Gentsch, 1797 Lennington St., Rahway, N.J.

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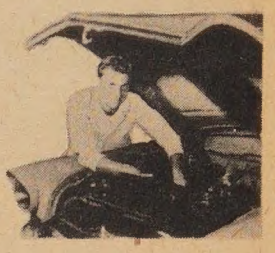
NOW you can train yourself for top pay in Auto Mechanics *by practicing at home with Tune-Up Kit and Tools!*

R. C. ANDERSON
President
CTI

America needs 50,000 auto mechanics! It's easy to see why: There are 50,000,000 autos and 10,000,000 trucks on the road. *One-third are in the heavy-repair class.* In addition, over 7 million new vehicles are produced each year. Repair shops are jammed with cars and trucks that need work. It's no wonder that *trained auto mechanics command good wages, work steady, enjoy security!*

Wouldn't you like to break into this well-paid, respected field? There's an easy, proven way that you can train yourself—at home in spare time. Yes, the *CTI Shop-Method Home Training Plan* gets you ready in months—even provides you with tune-up instruments and tools so that you can get practical experience as you learn! But get the complete story: *Fill out and mail coupon below.* We'll send two free booklets. No cost nor obligation. Get the facts now—decide later.

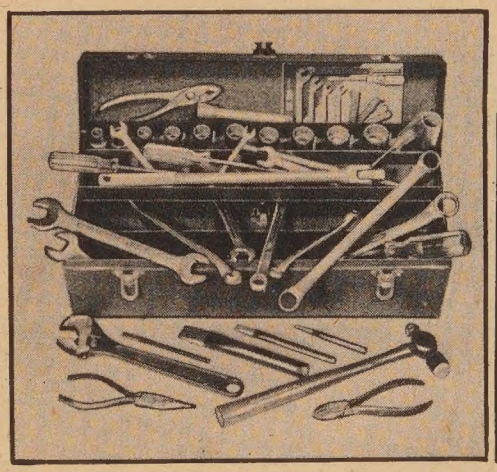
Start Earning Spare Time Cash



Soon after they begin training, many students earn cash in spare time by fixing cars. These earnings help pay tuition. Many students have started in business this way. Others get jobs in local shops before graduation.

VALUABLE TUNE-UP KIT

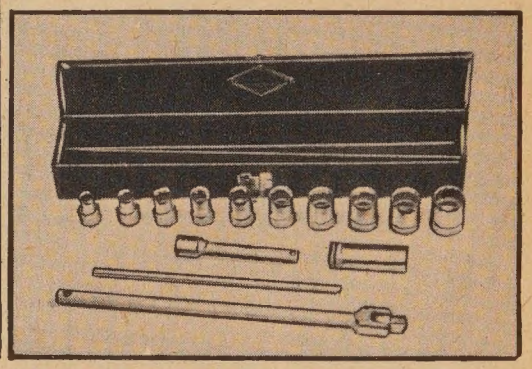
These fine instruments—the kind the experienced mechanics use—help you locate engine troubles quickly and accurately. Kit includes Compression Tester; Vacuum Gauge and Fuel Pump Tester; Ignition Timing Light; portable steel case. Each is the product of a famous manufacturer. Each is well-designed, accurate.



QUALITY TOOLS

These mechanic's tools help you get useful practice; keep your interest high; make you proud of your craft. You'll use them to earn money while training, and later as a "pro."

• *CTI instruments and tools are professional in design and quality, and are sent to students without extra cost.*

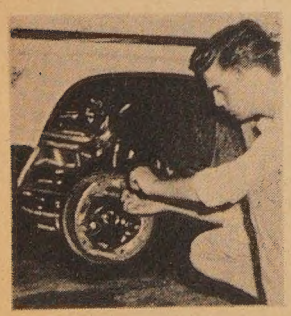


FINE SOCKET SET

Close-up view of socket set with 5-in. extension, which also is sent to you as part of your training. You'll use CTI tools on all types of engines—for a lifetime. All tools are finest quality.

Diesel or Body-Fender training, too

In addition to training in Auto Mechanics, CTI also offers you instruction in either Diesel Mechanics or Body & Fender Rebuilding. *Only CTI gives you this extra choice.* This added training is yours without extra cost.



Open a shop—Be the Boss

You learn engine tune-up; overhaul; electric, cooling and lubricating systems; automatic transmissions; power steering; power brakes; and many other repair subjects. As a trained man, you may if you choose, open a shop of your own. *Many students have done it!*

MAIL TODAY—GET TWO FREE BOOKLETS

COMMERCIAL TRADES INSTITUTE

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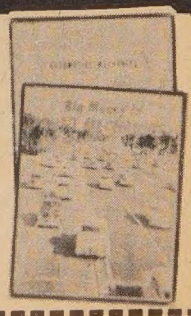
CHICAGO 26, ILLINOIS

Mail me your book, *Big Money In Auto Mechanics,* and Sample Lesson. Both Free.

Name_____ Age____

Address_____

City_____ Zone____ State____



THESE MODERN GOLIATHS GIVE THE RAILROADS MORE "GO"... You're looking at more than a million dollars' worth of streamlined power – sleek, tireless, highly efficient locomotives that help the railroads serve you better.

More Railroad Progress like this depends on adequate earnings

Isn't this common sense?

In a few years, the railroads have changed over almost completely to economical Diesel power. And other advances in motive power are already on the way – advances as important to America as to the railroads.

But the money for new locomotives – and all improvements in railroad service – must be supplied by the self-sustaining railroads from their own earnings. And railroads just aren't earning enough money these days to put into operation all the improvements they have developed, as fast as they would like.

Railroads *could* make enough money to do more of these things, for they are – by far – our most efficient system of mass transportation. But their earning power is hamstrung by outdated public policies that favor competing forms of transportation.

As a result, the railroads' earnings are reduced – and the nation loses some of the benefits of railroad progress.

In your interest – in the interest of *every* American family – railroads should be permitted *equal* opportunity to earn an adequate return on their investment. *Isn't this common sense?*

AMERICA MOVES AHEAD WITH THE RAILROADS.

Association of American Railroads, Washington, D. C.

YOUR BASIC TRANSPORTATION

J. E. SMITH, Founder, N. R. I.

I WILL TRAIN YOU AT HOME FOR GOOD PAY JOBS IN TELEVISION-RADIO

America's Fast Growing Industry Offers You Good Pay—Bright Future—Security

NRI TRAINED THESE MEN

"Started to repair sets six months after enrolling. Earned $12 to $15 a week in spare time."—ADAM KRAMLIK, JR., Sunneytown, Pennsylvania.

"Have my own Radio-TV shop. Average about $100 a week without advertising. NRI training my best investment."— LARRY P. MOTT, Miami, Fla.

"Am doing Radio and Television Servicing full time. Now have my own shop. I owe my success to N.R.I."— CURTIS STATH, Ft. Madison, Iowa.

"Am with WCOC. NRI course can't be beat. No trouble passing 1st class Radio-phone license exam."—JESSE W. PARKER, Meridian, Mississippi.

"By the time I graduated I had paid for my course, a car and testing equipment. Can service toughest jobs."—E. J. STREITENBERGER, New Boston, Ohio.

"Before finishing the NRI course I was employed as Studio Engineer at KMMJ. I am now announcing."—BILL DELZELL, Grand Island, Nebraska.

People *look up to* and depend on the Technician, more than ever before. His opportunities are great, and are increasing. Become a Technician. At home, and in your spare time, you can learn to do this interesting, satisfying work—qualify for important pay; develop confidence and skills you need to get jobs in this vast industry.

Start Soon to Make $10, $15 a Week Extra Fixing Sets

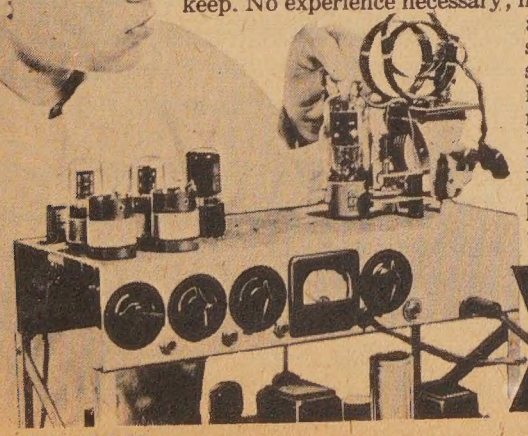
NRI students find it easy to start fixing sets for friends a few months after enrolling. Use the Tester built with parts NRI furnishes, to locate TV-Radio receiver troubles. Many who start in spare time, soon build full time TV-Radio businesses. Invest in training yourself—it pays big profits soon.

NRI Training Is Up-to-Date

NRI is America's oldest and largest home study Television-Radio school. More than 40 years' experience training men for success benefits you many ways. NRI methods are tested, proved. Successful graduates are everywhere, in small towns, big cities.

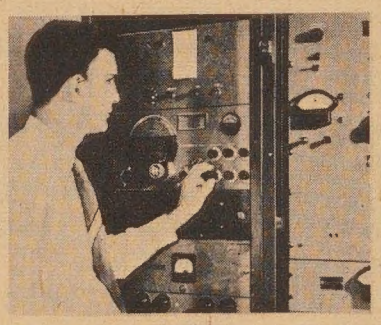
You Learn by Practicing with Parts NRI Sends

Clearly written, well illustrated NRI lessons teach Television-Radio-Electronic principles. Also, *without extra charge*, you get NRI kits developed especially to give actual practice with TV-Radio equipment. You build, test, experiment with actual Television-Radio receiver or broadcasting circuits; build, use, testing equipment. All equipment is yours to keep. No experience necessary; many successful NRI graduates did not finish high school. NRI has developed simplified, practical training methods. Ambitious men can get ahead fast. Mail coupon for Actual Lesson and 64-page Catalog FREE. See how you train at home to be a Technician, to get ahead.

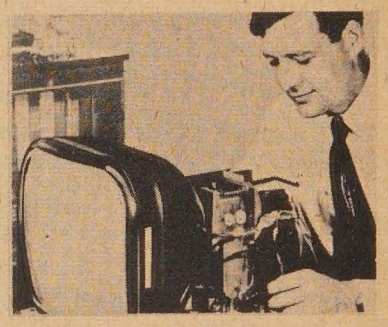


The Tested Way To Better Pay!

Technical Know-How Brings Better Pay—A stream of new electronic products is increasing job and promotion opportunities for Television-Radio Technicians. Transistor Radios, Color TV, Hi-Fi were unknown a few years ago. Guided missiles, automation, etc. would not be possible without this miracle science—Electronics.



The hundreds of TV and Radio stations on the air offer interesting jobs for Operators and Technicians.



A solid, proven field of opportunity is servicing the millions of Television and Radio sets now in use.

TV-Radio Needs Men of Action—Mail Coupon

You don't have to know anything about electricity or Radio to understand and succeed with NRI courses. You train in your own home—keep your present job while learning. Mailing the coupon can be one of the most important acts of your life. Do it now. Reasonable tuition, on low monthly payments available. Let us send you an actual lesson. Judge for yourself how easy it is to learn. A 64-page catalog gives details of opportunities and training. Address: **NATIONAL RADIO INSTITUTE, Dept. 8CR4, Washington 16, D. C.**

Good for Both—FREE

NATIONAL RADIO INSTITUTE, Dept. 8CR4
Washington 16, D. C.

Mail me Sample Lesson and 64-page Book, FREE.
(No salesman will call. Please write plainly.)

Name..... Age.....

Address.....

City..... Zone.... State.....

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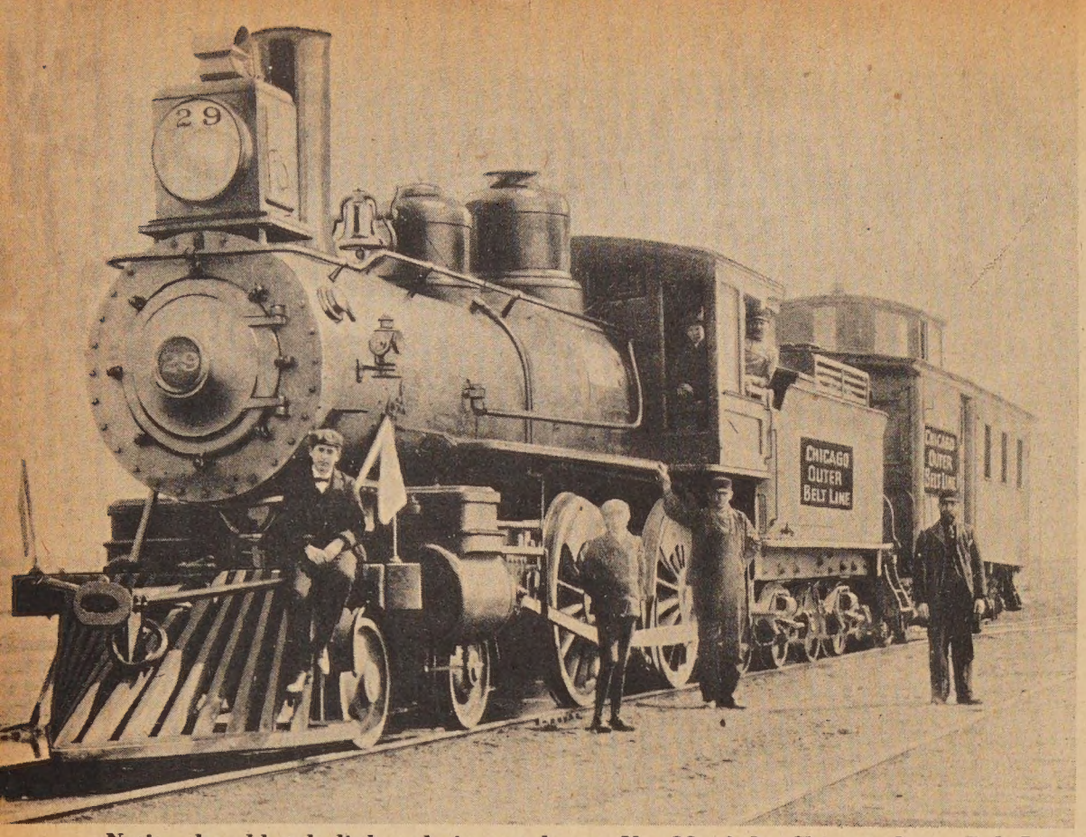

Notice the old-style link-and-pin coupler on No. 29 of the Chicago Outer Belt Line (Elgin, Joliet & Eastern), photographed in about 1894.
J-Milepost (EJ&E employees' magazine)

MAIL CAR

Running Orders, Waybills, and Sandhouse Gossip—from Railroaders, Fans, and the Editorial Crew

FRONT COVER is a Canadian National ektachrome showing the *Super Continental* in the beautiful summer resort region of Bala, Ontario, with Lake Muskoka at the left. ●

IT'S NEWS when a man bites a dog or a railroad replaces bus service. We hear about the latter from Russ Wolfram, 584 Jay St., Los Altos, Calif.

A regularly scheduled passenger train known as the *Eastside Comet* is now making nine trips daily across the Moffett Field Naval Air Station at Sunnyside, Calif. It is a two-flatcar express pulled by a diesel switcher. Its four-mile route lies between the mess hall and barracks buildings on the west side of Moffett and the two giant hangars on the east side, where more than 2,000 Navy men are currently operating Transport Squadrons 7 and 8. Running time each way, 10 minutes.

This is probably the only passenger train in history whose schedule is controlled by red and green signal lights from an airport control tower. The bus service it replaces was "expensive and cumbersome." ●

WHICH one of our readers lives furthest from a railroad? We nominate Charles R. T. Willis for this distinction. Charles lives at the Con Mine, Yellowknife, North West Territory, Canada.

"The nearest railheads are at Peace River and Ft. McMurray," he writes. "Each is about 450 miles south of here. A survey is being made for a possible rail line to be built eventually between Peace River and Hay River on the south side of Great Slave Lake.

"The Ft. McMurray route is an alternative to the Peace River route. It is on or near the Alberta Far Sands area and could touch or have an extension built to Lake Athabasca. Peace River and Ft. McMurray are on the Northern Alberta Railways, a joint Canadian National and Canadian Pacific line."

Charles Willis came from England. He worked for short periods on the LNE and the LMS (British Railways) and for the Gold Coast Railways in what is now Ghana, West Africa. Today at Yellowknife he has almost no contact with railroading except through this magazine. ●

THE TRAIN was highballing at sixty per. Mr. Brown was snoozing in his compartment when a fellow passenger burst in and gasped excitedly:

"Excuse me, but is your wife a rather stout lady wearing a brown dress and a red velvet hat?"

"Why, yes, but—"

"She has just fallen off the train."

"Good heavens!" shrieked Mr. Brown. "Don't stand there doing nothing. Pull the communication cord. She's got the tickets." ●

A TOUCHING SCENE happened the other day on the narrow-gage train named *Tweetsie* that the mountain people brought back recently to Hickory, N. C., about 150 miles from the home of Edgar C. Bruton, 420 W. Salisbury St., Asheboro, N. C.

"This train has been thoroughly overhauled and repainted," he writes. "I drive over there occasionally and have fun railroading with her. One Sunday, just before the train started on a trip, an elderly mountain lady asked for permission to ride in the engine cab. We told her that it was much nicer in the coaches, but she persisted, and so we helped her up into the cab.

"As we got under way tears streamed down her cheeks. She explained that her husband, now deceased, used to run that same locomotive, No. 12, out of Johnson City and that our mournful whistle blasts recalled the times when he would approach Boone. They brought up bitter-sweet memories." ●

EVEN with all its modernization, the railroad industry still offers opportunities for heroism. Recently Tony Vatalaro, a Pennsy brakeman, was in a crew switching equipment of the Union Tank Car Co. at the Pennsy yard in the Gray's Ferry district of Philadelphia. He saw suddenly that a rolling car had struck a Union employe and was dragging him to a coupling. Tony jumped aboard and applied the hand brake, stopping the tanker just in time. The victim, Walter Long, suffered only a dislocated right hip and multiple bruises. Witnesses say that if Tony had acted a few seconds later the man would have been decapitated. We salute a gallant railroader, Tony Vatalaro! ●

CAN one agent handle two or more railway stations adequately? This problem faces the Public Utilities Commission of South Dakota. The Chicago & North Western is asking for permission to end what it describes as a "wasteful and intolerable" situation.

1957 WINNER INDIANAPOLIS

SAM HANKS, famous race driver and mechanic says: "I'd like a NATIONAL SCHOOLS trained mechanic on my crew anytime! Any employer would!"

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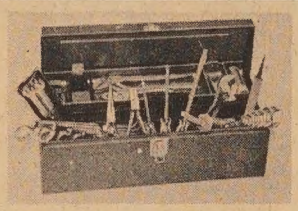

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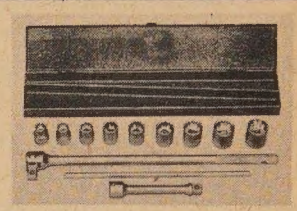

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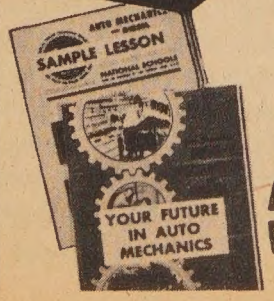

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The C&NW describes certain one-man depots in South Dakota as overmanned in the light of present requirements. It outlines a central-area agency plan whereby one person serving two or more stations could perform the existing essential services. The C&NW suggests a 30-day trial period for the new plan or, as an alternative, authority to withdraw agents from several one-man locations.

In the "Golden Age" of railroading, when many agents and operators were on duty 12 hours a day, seven days a week, such a move would have been unthinkable. Railway stations were important in those days. They served as social centers. Relatives and friends would gather at the depot and give travelers a sendoff or welcome them home again. The Motor Age changed all this. Today there is considerably less need for station services. Why, in South Dakota the North Western says it has agents who work as little as 15 minutes a day but are paid $91 per hour for actual working time!

As it demonstrates in its petition, the C&NW has 69 one-man stations in South Dakota where the agent's duties do not require him to work, on an average, more than two hours per day. The management presents a strong case. If someone will send us the employes' side we will publish it—with or without his name, as he prefers. ●

CANADIAN NATIONAL'S crew clerk at Kamloops, B.C., is 18-year-old Miss Colleen Black, 610 Battle Street. Besides calling the members of train and engine crews, Colleen delivers local messages for the agent or the superintendent and banks the money that the agent takes in.

"Every day I get a list and I call the men from that list," she says, "either by phone or by personal contact, and they give me an OK on the time to report for duty. I have always found railroaders polite and cooperative.

"One night a stranger frightened me. I was walking down a dimly lit street to call a crew. He followed me and I ran. He soon caught up with me, grabbed my arm, and said, 'Boo!' Then he went away. He was just a drunken bum with a crazy idea of humor."

Colleen is fond of dancing and the stage arts and has won several beauty awards. She was chosen "Miss Kamloops of 1957-'58." The Junior Chamber of Commerce, which sponsored the

Colleen Black, the Canadian National's callgirl at Kamloops, British Columbia

contest, presented her with a complete wardrobe, while her fellow employes and CNR officers gave her a bathing suit—a fitting gift in every sense of the word.

"I had a wonderful time," she says, "taking part in such events as the Kamloops celebration of Dominion Day, the Kelowna regatta, the Penticton peach festival, and the Pacific National Exhibition in Vancouver."

She hopes to make her career with the Canadian National, "provided nothing more important comes up in the future," and she has no special boy friend "at the moment." Her only railroading relative, an uncle, was a CNR switchman. ●

CIRCUS WRECK. "It occurred in Canada on Aug. 11, 1911, just east of Revelstoke, B. C.," recalls W. H. Tilley, 3701 Speedway, Austin, Texas. "I was riding that train. I worked for the Con. T. Kennedy Show, playing the steam calliope, the noisy contraption that invariably brought up the rear of the circus parade. When we were too far back from the locomotive to get steam from her boiler we would fire our upright fire-engine boiler and make our own steam so as to play tunes on the calliope while traveling through the towns.

"We were going from Vancouver, B. C., to Calgary, Alta. Our 70-car train was doubleheaded and had a third locomotive on our tail. The train had made a long stop so that we could feed and water the ring stock (trained horses) and the wild animals. We got a highball just as the sun was going down behind the tall mountains. I had walked up the right-of-way toward the head end and I crawled aboard a flatcar loaded with wild-animal cages, planning to ride the flat to the next stop. Soon it was so dark that you couldn't see the ground.

"As we rounded a curve I saw a tongue of fire coming from one of the journal boxes. The car I rode was so crowded that I could not climb over it to report the hotbox. I was scared. Something terrible would happen if that train didn't stop in time. Finding a box of matches in my pocket, I tried striking them and waving the tiny lights outside the car in the vain hope that someone would see them.

"Then—*wham!* Off went the axle with the hotbox! The car fell apart and began tearing up the roadbed. The air hose broke. The red, blue, and gilt wagons on that B.O. car sailed into the air, landing in a nearby river. Then several cars piled up. Some fine ring horses were injured so badly that they had to be put to death, but the only one human being killed was a man who had been riding in the car with the ring stock. No wild animals perished or broke loose.

"The crew dragged the front end of the train to the next siding. A few hours later the wrecking crew arrived with their big hooks. The sleepers were taken back to Revelstoke, where we stayed most of the day till the line was reopened. I snapped a few pictures of the wreck.

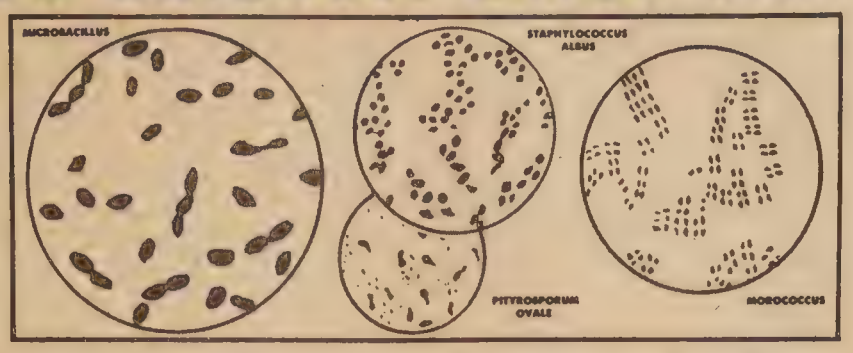
"We were a day late in getting to Calgary. Setting up the big top, we put on the show just as if nothing had happened except that the bareback riders had to curtail their act. Well, that cured me of riding flatcars. Anyway, there's a rule against it. As for the wreck pictures, they got lost over the years.

"I continued trouping until 1920. Then I quit the road and took to vaudeville as a musician. My father was a train dispatcher all his life, but the only time I got into railroading was a short stretch as telegraph operator at a little town near Little Rock, Ark., on the Cotton Belt." ●

(Continued on page 71)

How Baldness Often Starts...

Your forehead gets larger, you have itchy scalp, dandruff, excessively dry or oily scalp.



These scalp germs are at work — they are the bacteria usually found on the scalp when dandruff and seborrhea are present. Destroy them — before they destroy your hair growth.

Your forehead gets still larger. A bald spot appears on crown of head. Dandruff is heavy and scaly, scalp itches with more intensity. These are signs of approaching baldness. You'd better do something about it — quick!

FIGHT THESE HAIR DESTROYERS with WARD'S FORMULA and SAVE YOUR HAIR

Itchy scalp, hair loss, dandruff, very dry or oily scalp, are symptoms of the scalp disease called seborrhea. These scalp symptoms are often warnings of approaching baldness. Not every case of seborrhea results in baldness, but doctors now know that men and women who have this scalp disease usually lose their hair.

Seborrhea is believed caused by four parasitic germ organisms (staphylococcus albus, pityrosporum ovale, microbacillus and morococcus). These germs first infect the sebaceous glands and later spread to the hair follicles. The hair follicles atrophy, no longer can produce new hairs. The result is "thinning" hair and baldness.

In seconds, Ward's Formula kills the four parasitic germ organisms retarding normal hair growth. This swift germicidal action has been proven in scientific tests by a world-famous testing laboratory (copy of laboratory report sent on request). Ward's removes infectious dandruff, stops scalp itch, brings hair-nourishing blood to the scalp, tends to normalize very dry or oily scalp. In brief, Ward's Formula corrects the ugly symptoms of seborrhea, stops the hair loss it causes. Ward's formula has been tried by more than 350,000 men and women on our famous Double-Your-Money-Back Guarantee. Only 1.9% of these men and women were not helped by Ward's and asked for their double refund. This is truly an amazing performance. Why not join the men and women who have successfully ended their hair troubles? Treat your scalp with Ward's Formula. *Try it at our risk.* In only 10 days you must see and feel the marked improvement in your scalp and hair. Your dandruff must be gone. Your scalp itch must stop. Your hair must look thicker, more attractive, and alive. Your excessive hair loss must stop. You must be completely satisfied—in only 10 days—with the improved condition of your scalp and hair, or simply return the unused portion for Double Your Money Back. So why delay? Delay may cost your hair.

FACTS YOU SHOULD KNOW ABOUT THE LIFE OF YOUR HAIR

Practically everyone starts out in life with a normal and healthy hair-making apparatus. The problem is to keep it normal and healthy.

Seborrhea and its complications — dandruff, itchy scalp, hair loss, dry or oily scalp—are often forerunners, warning signs of future baldness. This scalp condition is not something to be accepted with resignation; many of the world's leading dermatologists stress that with proper care baldness can be postponed as much as ten years, even when many factors such as heredity are unfavorable. And for a much longer time when conditions are favorable.

Whatever your age or sex, scientific care of your hair and scalp with Ward's Formula will help you to achieve gratifying results NOW in better scalp health, hair vigor, and longer hair life.

Ward's Formula will control scalp seborrhea, eliminate dandruff and head scales, stop scalp itch, tend to correct very dry or very oily hair and, most important of all, stop the hair loss seborrhea causes.

Note to Doctors:

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Photos of the Month

Gordon S. Crowell, 24 Morris Crescent, Yonkers, N. Y.

No. 19 is the only motive power on the six-mile Preston Railroad at Crellin, Maryland. This road is no longer listed in the *Official Guide* because it is no longer a common carrier. Its sole function is to deliver 135 empty Baltimore & Ohio cars to the Banner Mine, which is located at one end of the line, and haul them back to the B&O, at the other end, loaded with coal.

Southbound manifest freight No. 94 of Clinchfield Railroad follows the picturesque curves of the Toe River. In upper right corner you can see the motor highway leading from Spruce Point to Bakersville, N. C.

Dramatic night shot of Pennsy No. 612, Class K-4sa, at South Amboy, N. J. This engine has wheeled such outstanding trains as the *Broadway Limited* and the *Congressional*.

Bud Rothaar, 757 Pierpont St., Rahway, N. J.

Norfolk & Western No. 2110 emerging from Montgomery Tunnel west of Shawsville, Va. Photo by O. Winston Link used on the cover of his new record album, *Sounds of Steam Railroading.*

(See page 79)

Southern Railway freight train comes out of famous Natural Tunnel in Virginia, on the Appalachian Division, to enter immediately the man-made "Little Tunnel." The perfectly-carved natural passageway has been used by trains since the 1880's. Its average height is 100 feet, its width 100 to 175 feet. The solid stone shown above tunnel mouth is over 200 feet thick.
Southern Railway System

Possibly the only woodburner left in main-line service on our continent is old Number 3, shown with a mixed train on Haiti's National Railroad, 112 miles of 3½-ft. gage.

George Weidner, 199-10 116th Ave., St. Albans, N. Y.

Quiet rural setting of the Norfolk & Western's Abingdon branch makes it an ideal spot for the steam fan to visit with his camera before it is too late. We see here No. 202 at Kellers Field, Va.

O. Winston Link, 58 E. 34th St., New York City

View of switch engine flashes on television screen of Pennsy train director 2000 feet away in Pitt tower, Pittsburgh, Pa.

Radio and TV in

Pushed Hard by Government-Subsidized Competition, High Taxes and Wage Increases, Class 1 Roads Are Taking Advantage of New Techniques to Give Better Service to Shippers and Passengers

by PETER JOSSERAND
Train Dispatcher, Western Pacific Railroad

BLARING RADIO warned officers of the law and Denver & Rio Grande Western employes that five convicts had just fled from the Canyon City pen in Colorado and were likely to board a train, the Rio Grande's radio frequency being the same as that of the State Police.

Railroaders were alerted. The telegraph operator at Texas Creek reported seeing five suspicious characters riding a freight toward Salida. When the train pulled into the yard, police quickly surrounded it and seized the deadheads without a struggle and put them in jail.

Those men turned out to be mere hoboes bumming rides, but the operator's tip was not in vain. Police who had converged on the scene as a result of getting his message shortly afterward caught the escaped felons in that vicinity while they were trying to hitch-hike on the

Watching the distant yard goat in miniature, he can easily guide its movements in switching 100 or more cars daily.

Modern Railroading

highway. So the Rio Grande's radio system, in addition to speeding railroad operation, rendered a real service to public security.

It is no accident that Class 1 roads are adapting modern techniques such as radio and television. Railroads no longer enjoy the virtual monopoly they had in the 19th century. Today's competition is tough, much of it being subsidized by national and local governments with taxpayers' money. Moreover, taxes on railroad-owned land continue to rise, the cost of equipment is always going up, and wage increases come along with what management regards as painful frequency.

These are the main reasons why our carriers keep reaching out for new gadgets that will enable them to give better service to shippers and passengers.

The iron horse and Marconi's invention have become inseparable allies. At first, railroad communication was limited to men on the spot and the telegraph. Hand, whistle, and light signals offset this handicap. Then came the telephone, still later the radio, and now television. Closed-circuit TV is going a long way toward making information on railroad operation instantly available.

Years ago, when the Morse code was the sole means of communication with outlying points, its use was confined to stations employing operators. With the adoption of telephone dispatching, however, train and engine crews in emergency could contact the dispatcher directly from non-telegraph points; but even then hand signals and telegraph offices were the only way of getting information to and from moving trains.

Rugged terrain or inclement

Pennsy train-communication system years ago included equipment box (shown with cover off), containing transmitter and receiver, mounted on engine running board. Union Switch & Signal Co., Swissvale, Pa.

weather often made it impossible to convey orders from one end of a freight train to the other, except by stopping the train and wearing out shoe leather. Today, radio enables the conductor and engineer to discuss their problems while the wheels are clicking over rail-joints. They can also chat with crews of other trains, ask distant agents, yardmasters, or dispatchers for instructions, and get in touch with the foremen of maintenance crews working along the line. Generally speaking, the application of radio may be divided into "Train" and "Train-Terminal," although the two overlap.

AS EARLY as 1920 the New York Central experimented with a so-called wireless system which utilized wires and rails as carrier circuits, and by 1926 the Central and Zenith Radio Corporation were making tests with pure wireless. Three years later radio was tried out in hump-yard switching. But these advances were set back in 1930 when the Federal Communications Commission withdrew all licenses in the wave band assigned to railroads.

Undismayed, the Radio Corporation of America began experiments in ultra high frequency on the Jersey Central, the New Haven, and the Pennsylvania, and in 1939 ship-to-shore communication became a reality on Ann Arbor train-ferries that plied the cobalt water of Lake Michigan.

But during World War II the railroads had no opportunity to develop suitable radio equipment. It was not until 1954 that manufacturers began producing such equipment in large enough quantity to make it economical. Since then the application of radio to railroading has been rapid. These applications include "end to end," "point to train," "dispatcher to train," and the blanketing of yard areas to control both train and switch-engine movements.

Where physical factors do not interfere, the general trend is toward installing radio stations at thirty-mile intervals. These can be activated by a code transmitted via telephone from the dispatcher or by a radio tone from men in the region, whether train or maintenance crews.

Such stations enable a dispatcher to contact trains moving in his territory. Trainmen, enginemen, or track gangs can contact the dispatcher or communicate with each other. The installation depends in part on the wires of dispatching circuits. It might be affected by storms, floods, landslides, or other mishaps which damage the wires.

Pure radio involves complications like the increased power of signals and the fact that some spots, especially in the mountains, cannot be reached by a direct broadcast. However, you could beam a broadcast to a reflector, which in turn would spread it over the desired area. Physical characteristics of the countryside determine the type of installation.

Radio carries on at times when wire communications break down, and this is very important in operating a railroad.

There are endless causes of train delays. For example, a Rio Grande conductor reported, "The worms have got us." It turned out that a column of army-worms crossing the track so greased the rails that locomotives could not get traction. Without radio, many delays would be as mysterious to the men in the caboose as to the dispatcher.

In bygone days, when an engineer wanted to stop he might throw off a lighted fuse to warn the rear end and to protect the train until the

Peter Josserand

A green fireman misinterpreted this signal as "Sail 'em!" when it really meant "Take it easy!" (Details on next page.)

Closed-circuit television in New York's Pennsylvania Station helps phone clerks sell tickets and reserve space on trains.

Pennsylvania Railroad

flagman could walk back the required distance. As a rule, the men in the crummy did not know the reasons for an unusual stop. The only way they could find out was by walking up to the engine.

END-TO-END train radio saves on shoe leather. The flagman is informed as to the probable duration of the stop and thus can do a more intelligent job of protecting the rear.

There are spots where echoes so distort a locomotive whistle that the flagman is not sure whether or not he is being recalled, and danger may arise when an eager-beaver assumes something. A modern walkie-talkie eliminates the flagman's doubts. With this apparatus he can notify the hogger promptly when he reaches the caboose. It is often impossible to convey this information by hand signals. Thus the walkie-talkie cuts train delays to a minimum and enhances safety.

When a conductor on a radio-equipped train discovers some condition that requires a stop—such as a hotbox, dragging brake rigging, broken wheel, or other defect—he can tell the engineer to make a normal stop at a convenient point, thus eliminating the hazards of applying the air from the rear end, such as a break-in-two or a derailment.

The rules require that any unusual or hazardous condition observed by a train crew must be reported to the dispatcher from the first available point of communication. With radio, this is done at once. No time is lost in getting to a telephone and no money is spent on stopping and starting a train in order to make a phone call.

Sometimes an engineer in his cab can use his radio to advantage in a non-railroad situation. For example, a hogger saw an automobile go over an embankment on a parallel highway and reported it to Highway Patrol headquarters. The latter contacted a motor vehicle cruising near the spot, with the result that help reached the scene of the accident five minutes after it occurred.

Radio is a boon to gandy dancers. This modern technique keeps them better informed on train movements. Moreover, trains can be instructed as to their speed through restricted areas without the necessity of being stopped so that someone can climb on the engine and tell the eagle-eye.

It is true also that men equipped with Walkie-talkies, working along the right-of-way, can quickly inform train crews of defects they observe, such as hotboxes. In bygone days, a section man might pinch his nose between thumb and finger to convey the general idea of a hotbox but its location in the train was beyond his communicative power. Radio not

only clarifies the location but also permits the conductor and engineer to discuss the best means of dealing with it. And when work-train crews perform such ticklish jobs as unloading welded rail, walkie-talkie gives the foreman contact with the engineer and thus more immediate control over the situation.

Hand signals leave much to be desired, especially when new men give or receive them. One yard engineer on my road, the Western Pacific, told me of having a green fireman who did not understand the switchman's signals, the switching being done from the fireman's side. The engine was drifting with a cut of cars and no signal forthcoming, so he asked what the switchman had said. "Sail 'em!" the ashcat replied. The engineer reached for his throttle and gave the goat a big shot of steam. A crash followed, breaking some flatcars, up-ending others, and scattering the rest along the right-of-way.

The switchman had extended his arms horizontally from the shoulders and slowly moved them up and down alternately—a signal to "take it easy!"—but the fireman had interpreted this as a seagull in flight and so he had said, "Sail 'em!" Thereafter the hogger insisted upon the green man duplicating the signals instead of trying to interpret them.

IN WRECKING OPERATIONS, the foreman is sometimes hard put to get into a position where he can both observe the progress of the work and get a signal to the derrick engineer. The walkie-talkie solves this problem. Furthermore, the man on the big hook can devote more attention to his controls if he does not have to look continually for signals.

Radio cuts the dispatcher's anxiety to a minimum. As a dispatcher myself, I can appreciate this fact. If a train fails to show up when due I can contact it to find out the cause of its failure to make running time or the probable extent of delay. Thus I am in a position to change the meets so the delay will not be passed on to other trains. Even in Centralized Traffic Control territory, we dispatchers must have this information. Otherwise, we may knock a signal down right in the face of the approaching train and cause the engineer to make an emergency application of the brakes with resulting damage to equipment.

Many accidents have occurred from misunderstandings between the two ends of a train as to when it was in the clear on a siding. The engineer turns out his headlight, indicating to the opposing train that the main track is clear, and the train on the main track sideswipes the rear portion of the one on the siding. Radio eliminates such hazards.

However, radio is not yet ready to take over the more important duties of train dispatching, or any other maneuver calculated to alter the superiority existing between trains, such as flagging instructions.

The Brotherhood of Locomotive Engineers on one road demanded additional pay for handling radio equipment, with the result that the company removed radios from all engine cabs pending a settlement of the dispute. Going back to the old way of doing things led to much confusion. It seems to me that the fireman, who no longer has to scoop black diamonds into the firebox and is less occupied than the hogger, is the logical man to handle radio equipment. A small desk built into the cab would permit him to do so.

It is hardly necessary to point out what walkie-talkies have done to make life less strenuous for switchmen, mudhops, and car repair men. Radio also keeps yard goats at the yardmaster's fingertips and greatly reduces switch-engine miles. Engines at outlying points can be kept informed of cars released by industries for movement. Being in constant touch with his motive power, the ringmaster is in a better position to assemble his tonnage and call trains with a minimum delay.

No longer can the callboy hide out on the yardmaster, for his ear is equipped with radio. So are official cars and much of the off-line equipment, such as repair trucks. Being in touch with headquarters, they are immediately available if needed.

Railroad lingo is a combination of technical terms, slang, and profanity. Uncle Sam won't tolerate the profane part on the air waves, so those using radio must forego the habit of using it. The search is on for strong but respectable adjectives with which the railroader can punctuate his speech.

TELEVISION of the "closed circuit" variety promises further improvement in communications, although it is still largely in the experimental stage. As early as 1952, the Baltimore & Ohio conducted experiments with TV in their Barr Yard, near Chicago, for checking trains, surveillance of remote areas, and inspection of mechanical equipment for defects. They located a camera in a pit under the track to permit the inspection of running gear and brake rigging, of cars and locomotives.

The Potomac Yard of the Richmond, Fredericksburg & Potomac boasts a permanent installation for grabbing car numbers. A train entering the yard pulls through a forty-foot shed equipped with lights to make possible the use of a TV camera day or night. A clerk in the yard office a mile and a half away reads the needed information from the TV screen into a tape recorder, from which it is later transcribed. One man does the work formerly performed by three and takes an hour and a half less time.

The Southern Pacific conducted extensive tests, one of which was with the ultimate aim of using thirteen TV cameras to give the yardmaster a complete picture of his yard. Daylight operation was satisfactory. However, additional lights had to be installed in the test area for surveillance by night.

This road also experimented with a TV camera to give the yardmaster a picture of the icing of perishables at the dock in Roseville Yard. Furthermore, they used two cameras in

(Concluded on page 51)

Old Minneapolis & St. Louis depot as it looked in about 1890.

BORN IN A RAILWAY STATION:

SEARS, ROEBUCK & COMPANY

SOMEONE should put a historical marker on the ancient wooden depot of the Minneapolis & St. Louis Railway at North Redwood, Minnesota, to pinpoint the origin of a great mail-order business.

In about 1890, when the above photograph was taken, this building was the Redwood freight and passenger station. It looks pretty much the same today, except for an addition built long ago, and it now has diesel railcar passenger service.

Our story starts in 1883, when a 19-year-old telegraph operator named Dick Sears became the station agent in this village. It was not a likely spot for an ambitious lad. The total population was about 100, including Dick and his parents, who occupied the second floor of the building you see here.

At first, Dick's income was barely enough to support one person, let alone three. He just had to increase it. Besides, if he wanted to hold his job he must drum up additional freight traffic for the M&St.L. Dick succeeded in doing both.

The company granted him a special rate. He used it in such a way that more and more freight shipments began pouring into the rural station. At the same time, he set up a business of his own. He sold coal, firewood, and lumber to the villagers and nearby farmers, and he bought venison, blueberries, etc., from the local Indians and shipped them out to distant markets.

Shortly after he settled down in Redwood a consignment of watches arrived. Nobody claimed it. In those years, distributors would often ship goods to small railroad depots, hoping that someone would buy them for resale. Many such shipments, like this one, were not even addressed to specific persons.

Dick queried other agents along the line, offering them the watches for resale. The response was good. He paid $12 for each timepiece and sold it for $14 to a fellow agent. The latter resold it locally for $16. Thus each agent involved, including Dick, made $2 profit on every watch he handled.

Young Sears promptly ordered more watches. By 1886 he was doing so well that he quit the railway moved to Minneapolis, and organized the R. W. Sears Watch Company. Then he advertised in the Chicago *Daily News* for a watchmaker, and as a result he hired A. C. Roebuck of Gary, Indiana. That started the partnership of Sears, Roebuck & Company.

Today Sears has 717 retail stores and 11 mail-order plants. It operates in the United States, Canada, Mexico, Cuba, Costa Rica, Panama, Hawaii, Australia, and four South American countries. Its sales in 1956 totaled $3.5 billion.

Thus the business which was born in a railway station is now supplying a colossal amount of freight for the rails, not to mention other forms of transportation. ●

While working as a station agent, Richard W. Sears founded an international and very successful mail-order business.

The *South Carolina* was impractical but she paved the way for successful double-ended articulated locomotives.

Allen and Fairlie Were Famed Designers of Locomotives but Their Two-Stacked Freaks Did Not Do Well on North American Rails

Double-Enders

by H. L. KELSO

THEY TELL a good story on "Uncle Smokey." He was a drinkin' man—that is, until a certain June day in 1873 when he finally became a teetotaler. Smokey was braking on the Denver & Rio Grande slim-gage over La Veta Pass that morning when hogger John Moulton rolled out a now-historic monstrosity, the *Mountaineer,* a double-ender. Smokey blinked in disbelief. On Various occasions he had seen snakes, pink elephants, and the "little men," but never before two locomotives rolled into one.

Recalling it later, Smokey said that he didn't know whether to give a *back up* signal or a *come ahead,* as the "damned critter" pointed in both directions at the same time. He was so flabbergasted that he swore off liquor—and stuck to it. My mother hoped, years afterward, that a like miracle would happen to Dad, who was a boomer, but it never did.

The *Mountaineer,* numbered 101, came to the D&RG as a gift from the Duke of Sutherland, an Englishman of means who was a Rio Grande stockholder. The Duke, influenced by a fellow countryman named Robert Fairlie, designer and patentee of the double-ender type, had her shipped to Denver from the Vulcan Foundry of Great Britain. She arrived at the "mile-high" city with John Moulton, the builder's representative, to show the Americans how to handle her. Moulton fell in love with Colorado and hired out to the narrow-gage road as a hogger, never returning to his native England. During the ten years of the *Mountaineer's* service he was her regular engineer. No one else would handle such a complicated piece of machinery.

An 0-4-4-0 with four 10x18-inch cylinders and 39-inch drivers, she weighed 62,000 pounds and was the first articulared four-cylinder locomotive to highball west of the Mississippi River. Her Rio Grande career was so unhappy that no tears fell when they scrapped her in 1883.

THE DOUBLE-ENDER, made famous or infamous, as you will, by Mr. Fairlie, originally was con-

ceived in 1831 by Horatio Allen, the world's first advocate of "big power." Allen topped the list of America's earliest locomotive-designers. In 1824 he'd been made chief mechanical engineer of the South Carolina Railway & Canal Company (now in the Southern system). Previous to that he had served on the Delaware & Hudson and had spent many months studying British railways.

At that time British engines carried their weight on two axles, a feature he disliked. The sad case of the English-built *Stourbridge Lion* on her only trip over the D&H's strap-iron rails had taught him a lesson—she was too heavy! What Allen wanted was a powerful engine that could take sharp curves and with a better weight distribution, not concentrated on two axles.

Gradually the idea of a double-ender took shape. After the dismal failures of the *Best Friend of Charleston* and the *West Point,* the first locomotives built on our continent, both 0-4-0's, Allen persuaded his board of directors to buy an engine of his own design.

The West Point Foundry, then America's only locomotive plant, built his first double-ender, the *South Carolina,* which opened a new phase of locomotive history when she hit the rails in 1832.

Allen described her as an eight-wheeler, but she did not have the 4-4-0 arrangement that later became so popular. She was actually two 2-2-0's latched back to back, with one firebox serving both boilers. Test runs of this monster, while not sensational, seemed to indicate great promise.

By September, 1834, a total of four double-enders were operating on the South Carolina road. Alas! not one of them lived up to expectations! We have no record of their final disposition, but we do know that many years passed before another double-ender appeared in this country.

Even so, Allens' idea was not dead. In 1852 John Cockerill revived the type in England by building two 0-4-4-0 double-enders for Austria's Semmering Incline Railway. His greatly improved design had a double boiler with two fireboxes in one casing, carried on two pivoted bogies. (The word *bogie* refers to what is known in America as the running gear; in this case it included all of the wheels under each bogie frame. Thus, a 2-6-0 plus 0-6-2 means that each of the two bogies had a 2-6-0 wheel arrangement, the larger figure being the driving wheels.)

An alternate method of double-ending was effected in England in 1855 by coupling two ordinary engines back to back. The first ones so hooked up were 0-4-4-0's built by Stephenson and exported to Italy for an incline railway. In 1873, the same year that the *Mountaineer* appeared, the system was first applied in Britain with some 0-6-0 engines designed by F. Trevithick for use in Cornwall.

Why didn't John Cockerill patent his engine? We can't say. In 1864 Robert Fairlie patented his double-ender, which differed from Cockerill's in that Fairlie used but one firebox to generate steam for both boilers on the double-stacked locomotive.

The *Mountaineer*, a narrow-gage Fairlie type, must have startled even the mountain goats when she hit La Veta Pass in 1873.

Denver & Rio Grande Western Railroad

LATER, Fairlie adopted the two-firebox system. His first engine, built in 1865 for a Welsh railway, was an 0-4-4-0 with four 15x22-inch cylinders and 54-inch drivers.

Then came his *Little Wonder*, which ran on another Welsh line, the 23½-inch-gage Festiniog. The *Little Wonder* performed so well that the 13½-mile Festiniog ordered four Fairlies in all. Two of them operated for more than seventy years. From then on the double-enders did real credit to Mr. Fairlie. Although few of them ever ran in England, this type was shipped to many countries.

The largest Fairlies built in England were the 0-6-6-0's exported in 1911 to the Mexican Railway. Those babies could haul 300-ton trains on a one-in-25 gradient with curves of 330-foot radius. Equipped with four 19x25-inch cylinders and 48-inch drivers, they were well thought of in Mexico.

An earlier, though smaller, engine of the same type was built in 1899 by Mr. Fairlie, or rather to his patents, for the said railroad. She weighed 98 tons in working order and could haul a load of 4,000 tons on the level, or 300 tons on an incline of one in 25.

But English builders had no monopoly on this type in Mexico. Among the weirdest of all double-enders were the three modified Fairlies outshopped by the Rhode Island Works in 1892 to the design of F. W. Johnstone, who was then mechanical superintendent of the Mexican Central Railway.

Built for sharp curves, they differed from the standard Fairlie in that they were compounds and, because of their design, transmitted power to the drivers by the ingenious use of levers hooked up with the crossheads. But these twins did not operate well in unison, so their gearing was rebuilt into a more simplified action. These monstrosities were 2-6-6-2's and were regarded as pretty fast for their type. One of them attained a speed of sixty miles per hour while running away with her train, but still held the rails after a wild flight down the mountain.

Until near the turn of the century the Fairlies had the articulated field almost to themselves. However, England's J.J. Meyers had designed a single-boilered double-bogie locomotive, based on an engine suggested by W. Gunther in 1852. The Meyers locomotive had a single boiler resting on the rear bogie by means of a lateral support and on the front bogie by a spherical pivot. All four cylinders were arranged in the middle rather than on the end of each bogie.

In 1894, Kitson & Company modified the design by supporting the boiler, water tanks, and bunker on a pair of girders which in turn rested on the bogies. Many Kitson engines went to South America, where they performed so well that the Fairlies got their first real competition.

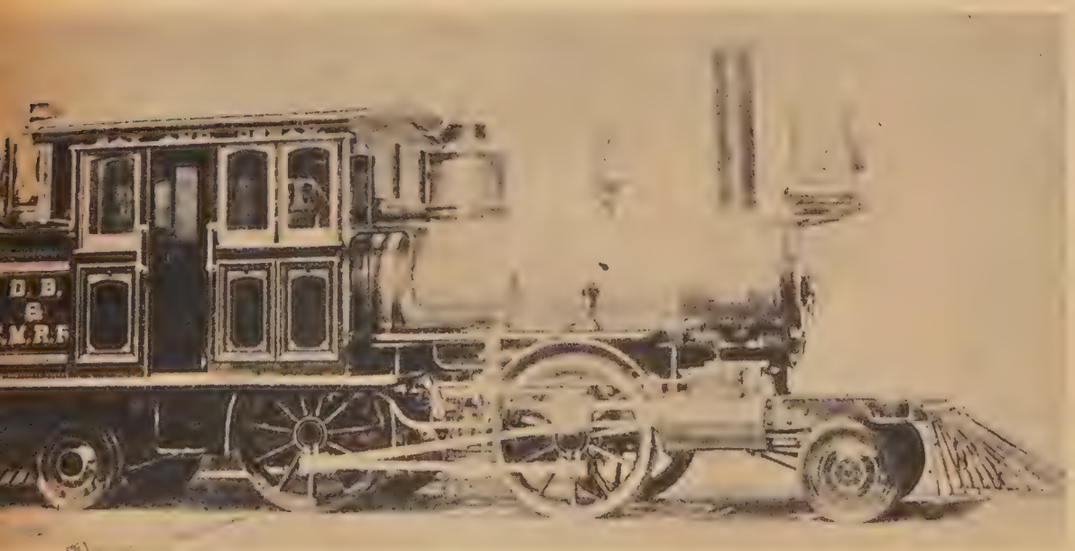
MORE COMPETITION came after the great Anatole Mallet invented his now-famous articulated compounds, a type which found favor in the United States. America might have seen many Fairlies had it not been for Anatole Mallet.

Came 1907, the year in which an Australian gentleman, H. W. Garrat, strode into the offices of the Beyer, Peacock & Company of Gorton, England, with carefully designed plans for an articulated locomotive. His type was to rival Mallet's compounds throughout the world. Only North American railroads ignored this design. Elsewhere the Garrats, generally known as *Beyer-Garrats*, took hold in a big way. Despite the widespread rise of diesel power, many of these steamers are still being built at Gorton. In effect, the Garrats are double-enders. They had much to do with the demise of the Fairlie engines.

In 1909 the Gorton Works built Garrat's first engine for the 25-inch-gage Tasmanian Railway, this one being a double-bogie compound 0-4-4-0. Oddly, she was the only such compound ever built. All following engines of the type are four- or six-cylinder simple engines with single boilers. Instead of being located above the wheels, the boiler is carried on a girder frame which is pivoted and supported on its ends on the bogies.

Fuel and water tanks are located at each end of the engine. The entire space between the bogies is available for a huge boiler and nothing but the clearance restrictions limits its size. Having large boilers and fireboxes, they are excellent steamers and well liked by the engine crews.

Getting back to America, where Fairlie engines never became popular, we had the Rio Grande's *Mountaineer* and only two other notable Fairlies. One was the *Janus*, the other the standard-gage *McCloud Wonder*. The *Janus* was outshopped in 1871 by William Mason of Eight-wheeler fame for the Boston &



Although the *Bay and Ocean* of the Delaware Bay & Cape May Railroad had headlights and pilots (cowcatcher) fore and aft, she was technically not a double-ender.

Three of the Fairlie locomotives that ran in Mexico. The *Aculcimco* and the *Tezuitlan* were coal-burners; No. 123 burned wood.

Providence (now part of the New Haven) and assigned to pusher service on Sharon Hill near Boston.

Transferred later to the Boston & Albany, she spent a year or so in helper work in the Berkshires. Then in 1873 the Lehigh Valley bought her for mountain climbing around Wilkes-Barre, Pa. In 1877, the year of the first big railroad strike, she collided with another engine and was damaged so badly that she had to be retired.

Lehigh Valley archives do not state what finally happened to her, but there is reason to believe that one of her boilers served as a heating plant at Perth Amboy, N.J., the other half being patched up and put into yard service at Sayre, Pa.

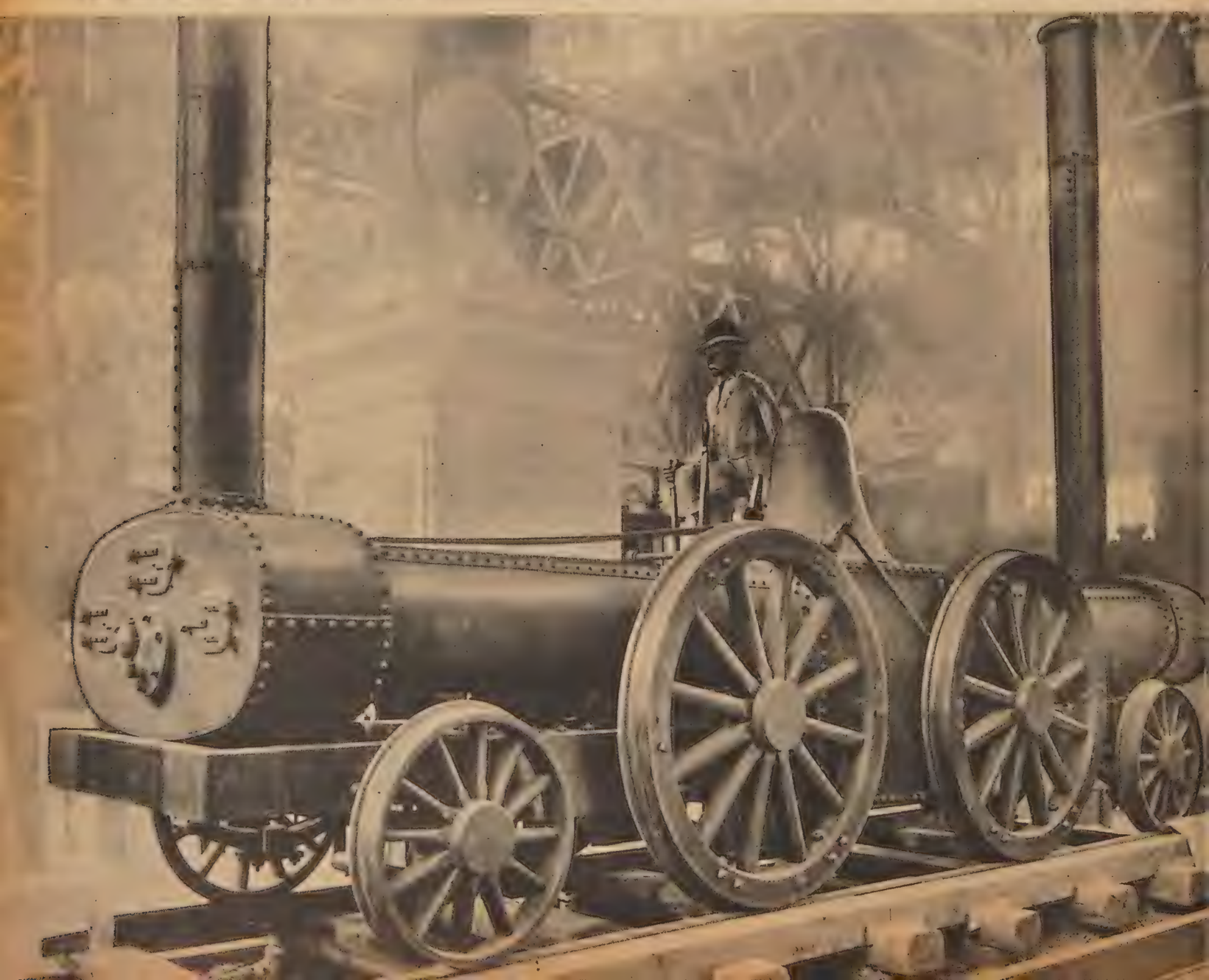
Baldwin built the *McCloud Wonder* in 1900 for the McCloud River Railroad, a California short line that connects with the Southern Pacific, the Western Pacific, and the Great Northern. Although the McCloud road listed its Fairlie as No. 6, Baldwin records show this Siamese twin as their No. 17684 and No. 17685, two separate machines joined back to back. When the SP took over the McCloud road it separated the engines, one becoming No. 5 and the other keeping her original number. Both became 0-6-0 tankers. In 1937 No. 6 was sold to a construction company, No. 5 to a logging outfit.

CANADA'S contribution to Fairlie history was limited to two such locomotives. One was the *Caledon*, an 0-6-6-0 woodburner which worked in freight service on the Toronto, Grey & Bruce narrow-gage between Toronto and Owen Sound in the 1870's.

According to Brian Fawcett, mechanical engineer of the Central Railway of Peru, the *Caledon* was built by Neilson & Co. at Glasgow, Scotland. This statement is disputed by Robert R. Brown, Eastern Canadian representative of the Railroad & Locomotive Historical Society, who says she was outshopped in 1871 by the Avonside Engine Company of Bristol, England.

In the late '70's she was driven by Ben Follis of Toronto, who lived to be well over ninety. This double-ender was never well liked. She had a wheel reverse, and so it took a lot of skill to balance her on a turntable with no brake. The hogger handled two engines under one roof, and for this he needed two firemen.

The *South Carolina*, designed by Horatio Allen, with a dummy at the controls, photographed at St. Louis Exposition in 1904.



The wood-burning *Caledon* worked in Canadian freight service on Toronto, Grey & Bruce between Toronto and Owen Sound.

The firemen had to go up and get the wood from what they called "the baskets," above the boiler, throw it down on the deck in the cab, then get down and heave it into the copper fireboxes. Another unpleasant duty for the ashcats was to walk over the tank, down to the front of the engine, every time the main valves required tallow, regardless of snow, sleet, cold, or rain.

There is no record of the *Caledon's* dimensions, but we know that her steam pressure was 145 pounds. She was scrapped, with no regrets, in 1881 when the Toronto, Grey & Bruce was converted to standard-gage. Two years later the Canadian Pacific took over the TG&B.

A sister engine, the *Shedden,* was named for the president of the Toronto & Nipissing, on which she ran. She was even less popular than the *Caledon.* One day she blew up near Coboconk, Ontario, taking with her to glory an entire crew of seven men. This is said to have been the most disastrous boiler explosion in Canadian history.

Some old information about the *Shedden* was unearthed recently in the Canadian National's motice-power files at Montreal. "Like a fiery two-headed dragon belching sparks and billows of black smoke from its stacks," the account read, "this double-header raced or crawled through forests and farms of the backwoods country."

FROM THIS it may be gathered that double-enders were not exactly successful in the New World. The largest order for Fairlies received in America was placed with Baldwin by the French Government in the early teens. Those engines, known in France as *Pechots,* were 0-4-4-0's with 6.9x9.45-inch cylinders and a total weight of but 28,100 pounds. Running on a track gage of 23⅝ inches, they were probably the smallest Fairlies ever built.

Many years ago, some authorities in the United States had referred to a certain type as a *double-ender* although it had no connection with the twin-boilered, two-stacked Fairlies. An early edition of the *Locomotive Cyclopedia* defined it thus: "A locomotive designed to run equally well in either direction. Usually the tender is supported on an extension of the main frames and guiding trucks are placed at both ends of the engine. Used for switching, suburban, and branch line service where turntables or wyes are not available."

This definition really pertains to *tank* engines, the coal bunkers and water tanks being built on an extension of the main frame. In some cases, when the water tanks were placed alongside the boiler, the engine was called a *side-tanker.* When the water tanks were placed over and around the boiler she was a *saddle-tanker.* Each was designed to run equally well in either direction, some being equipped with pilots (cowcatchers) on both ends. Hundreds were built by various American builders for service in this country and abroad.

In England, tank engines were used in *push-pull* service. This strange practice, confined almost exclusively to branch lines, was accomplished by latching onto one or two passenger cars and running to the end of the line. Then, instead of turning the engine or running around the cars, the engine would push the cars ahead of her back to the original starting point.

Such is the story of double-enders. So far as we know, not a single Fairlie is preserved for exhibition anywhere on the globe. ●

Canadian National Expands

Modern Pioneers Are Pushing New Branch Lines through the Wilderness in Scattered Areas from Maritime New Brunswick to Forested British Columbia, Thus Tapping Many Virginal Sources of Natural Wealth

by CHARLES MORROW WILSON

Canadian National Railways

This tracklaying gang is blazing a steel trail from Terrace to Kitimat, site of the world's largest known aluminum deposits.

NEW RAILS are gleaming in the Northern sun. The "building-est" system, Canadian National, is at it again, thrusting the steel of seven new branch lines into vast stretches of virginal wilderness which never before saw a train or any kind of vehicle but a dog-sled.

Such activity, as a rule, is fairly ancient history. We know that the peak decade in railroad-building on our continent ran from 1880 to 1890, when 60,301 miles of new lines were constructed. That, my friends, was a fabulous decade. But the Canadian National is expanding right now in the year 1958. Those seven branches are scattered from maritime New Brunswick to the venerable pine forests of British Columbia and they, in turn, are beginning to develop natural wealth which needs the twin ribbons of steel to make it usable.

From them come rich payloads of aluminum, nickel, copper, silver, and iron ore. Also timber and wood products, asbestos and marble. There's adventure, too, in modern guise. The construction crews hunt bear, make pets of certain forms of wildlife, and tamp seven-ton charges of dynamite into holes that are twenty feet deep.

A spike-driving ceremony is a festive occasion for both the railroad builders and the natives who come from many miles around to attend it. The white men are proud to squire the black-haired, olive-skinned, Eskimo beauties on their first train rides. Eskimos of both sexes get a real kick out of riding the rails. According to men who know, those brunettes of the North, with their healthy bodies, thick lips, and saucy grins, are no less feminine than their blonde sisters on the paved sidewalks.

The official spike-driving ceremonies for the different branch lines show variety. Two final spikes, made of aluminum and nickel respectively, are already in. Others will be fashioned from copper, iron, zinc, silver, and even forest woods.

Long before steel is laid, sawyers and bushing crews "daylight" the primeval big woods for a tote road over which supplies and equipment will be brought in.
Canadian National Railways

ONE of the branches, the Kitimat, was opened last July 8th by Sam Dingle, the vice president in charge of operations. It's a 47-mile line in up-country British Columbia, located near what may well be the world's richest aluminum mines.

The ceremonial spike that time was a bit of newly-mined aluminum. Mr. Dingle played it smart. Instead of driving a relatively soft pin with a maul, he used a modern Sturgess pneumatic spike-driver. When the first passenger train came dieseling up the line, the 160 special guests aboard held souvenir tickets made from paper-thin aluminum.

Later, the vice president opened the 244-mile Big Nickel Branch in northern Manitoba, which has since begun to carry much of the continent's nickel supply. Naturally, he used a nickel spike, and yielded the honors to Donald Gordon, the National's chairman and president.

Mr. Gordon doffed his overcoat took up a seven-pound hammer (nickel-plated, of course), swung away, and missed the spike twice but finally drove it home. Later, he explained that the two misses had been deliberate because, he said, "I saw all the small children gathered there for a laugh and I wasn't going to disappoint them."

This is frontier country where "timber" means virgin forests, where any tree shorter than 80 feet is just a sapling, where 60 degrees below zero is only fairly cold and minus 30 is just a crisp winter day, and where a 50-mile stretch of construction never passes through a village, a farm, or even a clearing.

The construction engineers are putting down some of the smoothest roadbeds anywhere. On many Class 1 main lines, gradients of 2 to 2.5

percent are fairly common. Some of us have even seen or railroaded grades up to 5 percent. But Canadian National's new lines, even those cutting into rugged country, are surprisingly level. In fact, D. W. Blair, the Atlantic Region's chief engineer, describes the new Heath Steele line in northern New Brunswick as "straight as an arrow and level as a table-top."

Profiles show the railroad flatter than any table-top in myhome Its grades range from zero to about 0.05 of one percent. The 21-mile stretch is said to be the world's straightest main line. Most of its curves are so slight that they have to be measured in minutes or seconds instead of degrees. When a hill gets in the way it's too bad for the hill.

The cost of these 21 straight miles runs above $400,000 per mile. An average of a million cubic feet of rock and earth has to be removed for every mile of right-of-way, 60 feet wide. To open the solid rock cuts, as deep as 40 to 50 feet, called for some of the heaviest blasting in railroad history. It's a matter of air-drilling holes 25 feet deep, tamping in a ton or more of dynamite per hole and blowing up to 300,000 cubic yards with one giant, synchronized, seven- to ten-ton blast charge. That, my fellow citizens, is really dynamiting!

LAST SUMMER, when bridging engineers latched onto the much-feared, fast-currented Tomogonek River in upper New Brunswick, they used a fleet of caterpillared draglines and bulldozers. They diverted the sizable river into two steel culverts each twelve feet in diameter and 50 feet long. Then they dirt-filled over the culverts and built the tracks on what now looks like a routine fill with a king-size drain.

The ordinary bridge-building routine is to set up a "foundation trestle" of creosoted brace timbers and let them settle. Then set in the big steel "chassis," place the drains, use large earth-moving machinery to fill in, and tamp and shape up.

This method leaves the tracks resting on what looks like a reinforced crossing base. But it isn't always possible. It wasn't in the case of the Bell River in Quebec.

The Bell is reputed to be the fastest stream in North America. Its main current averages 25 miles per hour. This river crosses the National's 288-mile Chibougamau-St. Felicien line which, when finished, will link the transcontinental main stem with Lake St. Johns plus what is described as 12,000 square miles of the finest timber left on the continent. The new line also will connect with a vast fresh center of gold, silver, copper, and zinc mining.

The "Chib" country has never been reliably mapped. Canadian National's six-man locating parties spent six months blazing a right-of-way trail. Twelve miles from home base the bushing and clearing crew ran into the Bell River and came out second best.

But the bridgers didn't come out second best. They employed ten 600-hp. "cat" tractors to haul materials and equipment through the stumps, or tote road, to the river's edge. For example, they dragged in a dismantled needle mast and reassembled it on the north bank of the "uncrossable river. Next, in whale-harpooner style, they shot across some steel cables, which they used to link the needle mast with an A-frame on the opposite bank. After that, they built an all-steel catwalk across the river, steadied it with a center pier, and equipped it with safety belts.

Then they began assembling and welding a 400-foot two-span cantilever bridge 55 feet above the madly racing current. They rooted the first 200-foot span on a temporary wooden structure, anchored the second 200-footer to the first, set up a line of hoist cranes, and boosted the huge bridge into place.

Engineering professors will tell you that nobody can build a bridge that way. But the Canadian National did. When this job was completed, they set up twenty more bridges before the real road-building could start. By the time you read this article, long strings of ore cars and log flats will be rolling over the new line to the mills.

Jack Paterson

Construction crews like to make pets of various wild animals such as this frolicsome bear cub known as Blackie.

THE FIRST "trains" which mushed and skidded through with supplies and material for last summer's track-building were "sleigh-bell expresses," which ran without rails. They were strings of cabooses, work cars, box cars or flats, mounted on heavy steel runners instead of wheels and towed over the snow by teams of caterpillar tractors.

In winter the big cats mounted snowplows to fight the drifts. Usually the drivers, or "skinners," take it in the open, shielded only by a glass window in front, a vacuum jug of coffee, and possibly a pint of Green River—medicinal, that is.

Oldtimers remember how earlier Canadian National lines were blazed with the help of dog sleds and the red-coated Royal Canadian Mounties, who really knew the "wild country." The Mounties still help with valuable advice and law enforcement; and even today dogs still enter the picture, as in the

"Sleighball express," a train of cars mounted on steel runners instead of wheels, is hauled over snow by caterpillar tractor.
Canadian National Railways

building of the Hillsport Copper line in northern Manitoba, There, retired roadmaster Joe Petersen, Canada's champion bear-hunter, uses a pack of bear hounds to keep bears off the new right-of-way so that the rail crews can better keep their minds on their work. Any way you look at it, 1958 railway-building is a far cry from old oldtime pick-swinging and dogsled-mushing.

So are the sleighbell trains. They may be a bit chilly, and riding them isn't quite de luxe, but most of the time it's good. The skid-mounted cabooses are heated with monkey stoves. Some of the snow-riding cabooses boast cozy bunks, mess halls, kitchens, and food lockers. They even have sitting rooms where you can stretch your legs beneath a game of checkers. A few sled crummies have been refurbished as drafting and storage rooms for the construction engineers; others are assigned to the foremen as "command offices."

As a rule, the sleighball specials are connected by radio-telephone with work camps and supply bases. The wages paid on some of these jobs exceed $200 a week.

Three years ago the National took up the building of what may become the world's busiest "copper railway." Presumably it will be ready for driving the official copper spike late this year.

Things are booming out of Hillsport stop, listed on the maps merely as a watering place for CNR's famous *Continental Limited.* The construction story is fairly typical of all seven of the new ones. Surveyors laid out a first 24-mile "extension" to Manitouwadge and built supply bases near the first projected mine site. Sawyers and choppers cleared a 60-foot right-of-way. They ironed into the tall forests of jackpines, spruce and birch trees.

As the way began to open, friendly black bear and mating moose strolled in to see what was going on. The worst harm they did was to raid a couple of food caches. A bear cub stumbled back into the woods with the cook's sugar pot stuck on its head. The pot was found later, broken and free of sugar. A papa moose pawed open a crate of dehydrated eggs but abandoned them.

Little Kre Indians came visiting, garbed in so many layers of "belly coats" that they looked almost square. They couldn't speak any English, but they smiled so engagingly that they went home bulging with cakes and pies.

As the long, hard winter of 1955-'56 set in, cat skinners opened the sleighbell express service along the newly cleared right-of-way. They stopped en route to set up pole teepees for warming stations. By Canadian Thanksgiving the mercury had dropped to 30 below zero; by Christmas, 60 below. Turkeys had to be thawed for two days before going into the baking ovens. Even so, Yuletide was merry in the tar-shacked camp, duly insulated with drifted snow.

Indian families trooped in to fraternize about the hot stoves and sit down at the slab board tables crowded with roast turkeys, legs of

mutton, and bear steaks. Before the big meal the local lumberjack population, about 30 men, felled and stacked enough cordwood to warm the camp the rest of the winter.

Next day the skinners went back to skidding up the cement, steel, and timbers for the roadbed, which was put down the following summer in virtual tundra mud.

Work on the "Big Copper Line" is setting patterns for future branch-line construction. Blasting crews using portable air drill rigs (Gardner-Denver is a favorite) drilled the deep holes and placed and switched on the big dynamite blasts. Roadbed survey crews checked alignments and drew up profiles. Earth-movers and bulldozers leveled off the roadbed sites, and the bridging crews worked with them. Truckers began stacking creosoted ties at the roadside, 3,000 to the mile.

After the roadbed was shaped they "scattered on" the ties 21 inches center to center, using Woolery cutters and other new equipment. Actual rail-laying was done with railmounted, 77-ton Burro cranes.

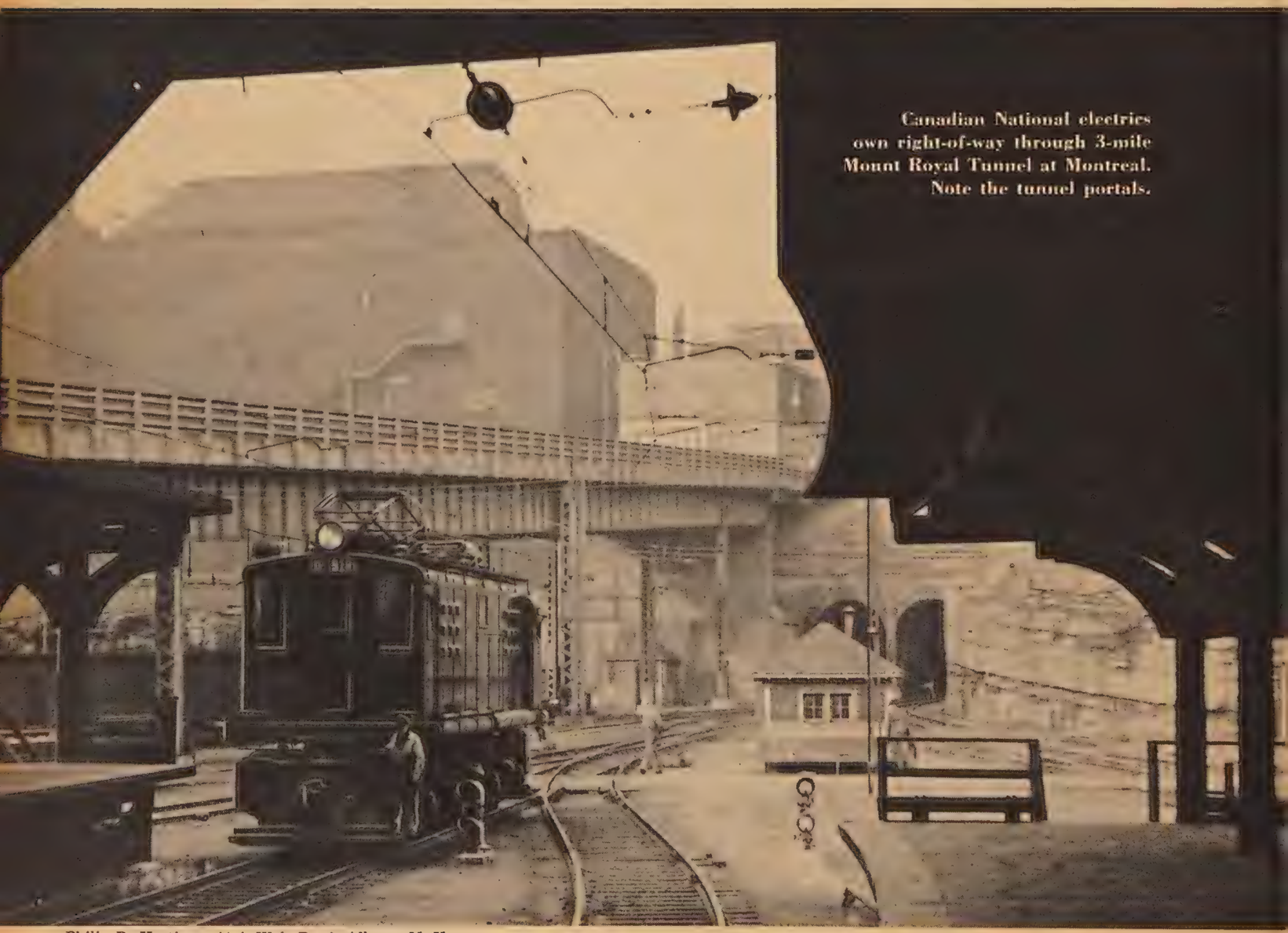
The rails are standard 39-foot sections, mostly 100 pounds per yard, though a little 115-pound is used, with 60-foot lengths on crossings. The rails are automatically place-spiked with pneumatic drivers. Light diesel switchers pull up work trains, which thereupon discharge tie plates, wiring, frogs, blocks, and so on from side-dump cars.

Pretty soon the long side-door ballast trains begin to roll. As the ballasting progresses, the dragline, clamshells, heavy-duty diesel tractors, bulldozers, and dump trucks swarm in to finish the side drains, abutments, and bridge fills.

Thus a 4,000-mile system is growing toward 25,000 miles as one after another of the new branches begins adding to the system's annual 100 million tons of cargo freight. This expansion gives the CNR's 2,700 steam and diesel locomotives and 115,000 freight cars still more to do and earn.

But the story is mostly a saga of people — surveyors, builders, railroaders, miners, lumberjacks, hunters, trappers, and men of a hundred other occupations, dealing, planning, and working together in English, French, and at least half a dozen Indian lingoes including Eskimo.

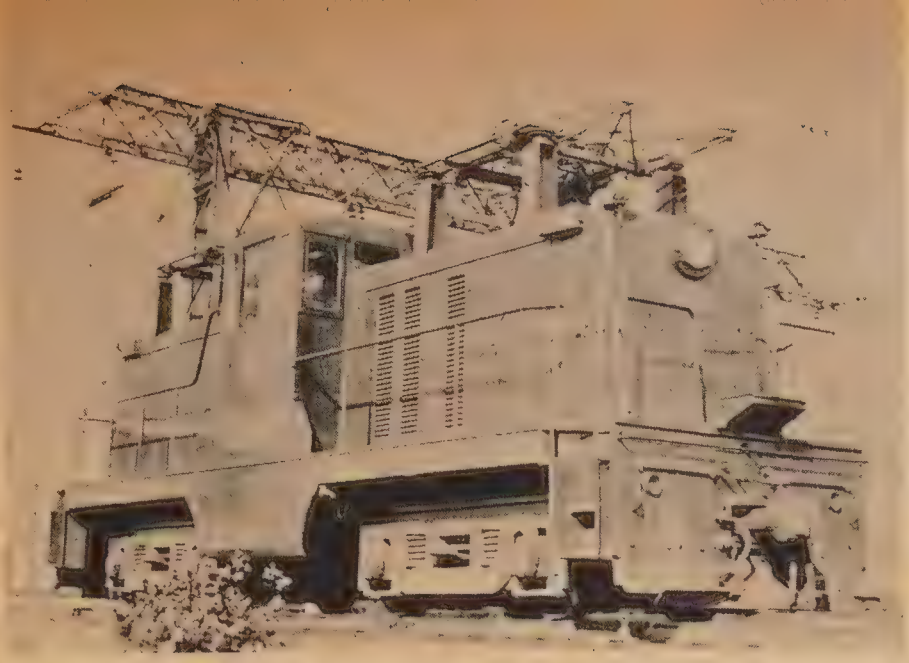
Even with all the high adventure and excitement thrown in, and the occasional friendly smile of a native girl to ease the loneliness of men-away-from-women, the job of building new branch lines on the Canadian National system is grueling hard work. But it's never dull. ●



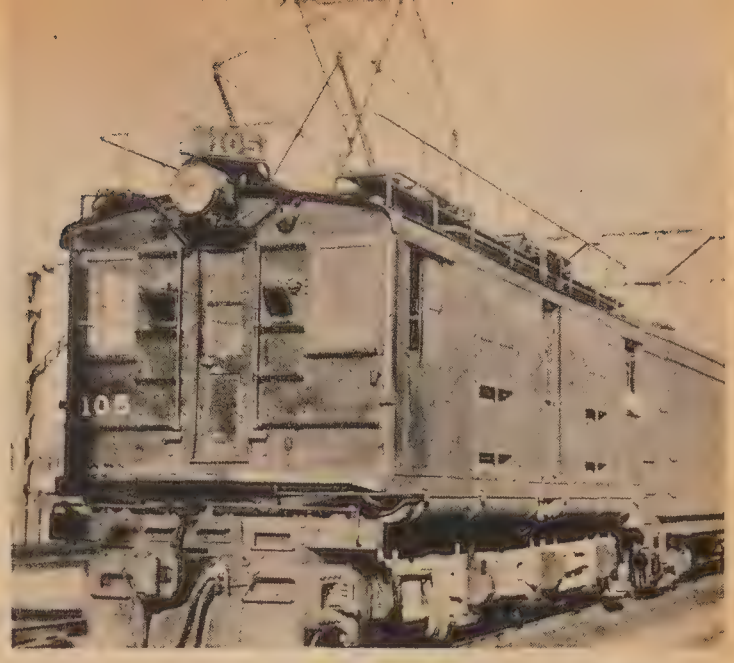
Canadian National electrics own right-of-way through 3-mile Mount Royal Tunnel at Montreal. Note the tunnel portals.

Philip R. Hastings, 44-A Weis Road, Albany, N. Y.

Both photos by Sy Reich, 92 St. Marks Pl., New York City



Canadian National 202 at electric shops, Montreal; 3300 volts DC.



No. 105 at the approach to Montreal Central Station.

Canadian National Electric Motive Power and Cars

Compiled by Sy Reich

ELECTRIC LOCOMOTIVES

Montreal Area

Rd. Nos.	Class	Whl. Arrngt.	Builder	Type	Date	Cont. TE	Starting TE	Wt.	Motors	HP
100-105	Z-1a	B-B	GE	Box Cab	1914	18,600	43,400	173,500	4	1100
180-188	Z-4a	B-B	EE	Box Cab	1924-'26	21,400	50,400	201,500	4	1100
200-202	Z-5a	B-B	GE	Steeple Cab	1950	17,900	42,600	171,700	4	1100

Niagara, St. Catherines & Toronto

8	——	B-B	GE	Steeple Cab	1924	(1)	(1)	88,000	4	500
14	——	B-B	GE	Steeple Cab	Rblt. 1943	(1)	(1)	102,000	4	500
15,19	——	B-B	EE	Steeple Cab	1924	(1)	(1)	115,100	4	760
16-18	——	B-B	WH	Steeple Cab	1930	(1)	(1)	115,000	4	400
20	——	B-B	GE	Steeple Cab	1937	(1)	(1)	116,800	4	900
21	——	B-B	WH	Steeple Cab	1927	(1)	(1)	120,200	4	840

Sarnia (St. Clair River Tunnel)

175-176	Z-3a	B-B	Bald.-WH	Box Cab	1918	13,600	36,000	143,000	4	700
150-155	Z-2a	C	Bald.-WH	Box Cab	1907	18,500	33,000	128,900	3	667
156	Z-2b	C	Bald.-WH	Box Cab	1927	19,700	33,000	141,040	3	667

Montmorency Subdivision (Quebec Railway, Light & Power Co.)

225-228	——	B-B	Nat. Steel Car Co.	Steeple Cab	1930	24,000	(1)	135,000	4	1000
229-230	——	B-B	QRL&P	Steeple Cab	1928	16,000	(1)	130,700	4	1000

Oshawa

300	——	B-B	WH	Steeple Cab	(1)	(1)	(1)	87,300	4	300
325,327	——	B-B	GE	Steeple Cab	1918	(1)	(1)	101,000	4	660
326	——	B-B	WH	Steeple Cab	1940 Rblt.	(1)	(1)	103,000	4	400
400-403	——	B-B	WH	Steeple Cab	(1)	(1)	(1)	99,300	4	400

ELECTRIC CARS

Niagara, St. Catherines & Toronto

Road No.	Builder	Date	HP	Length	Width	Height	Wt.	Seats	Stands
41	Brill-WH	1929	300	58'-5½"	8'-6½"	13'-2"	75,000		Express
82	NSC&T-GE	1925	300	61'-9"	9'-0"	12'-11½"	80,000		Express
83	NSC&T-GE	1925	300	61'-9"	9'-0"	12'-11½"	80,000	72	35
620,622, 623	Ottawa Car Co.-WH	1930	400	51'-8"	8'-5½"	12'-10"	68,000	50	25

Montreal

1-6	CC&F	1952	340	70'-6"	10'	13'	149,900	88	29

Montmorency Subdivision (Quebec Railway, Light & Power Co.)

401	Ottawa Car Co.	1902	300	62'-6"	10'-4½"	13'-5"	76,160	76	24
405	Ottawa Car Co.	1904	300	62'-6"	10'-4½"	13'-5"	76,160	76	24
450-455	Ottawa Car Co.	1930	500	65'-6"	10'	12'-6"	85,500	76	24

ABBREVIATIONS: GE—General Electric; EE—English Electric; WH—Westinghouse Electric; Nat. Steel Car.—National Steel Car. Co.; QRL&P—Quebec Railway, Light & Power Co.; Brill—J. G. Brill Co.; NSC&T—Niagara, St. Catherines & Toronto Ry.; CC&F—Canadian Car & Foundry Co. (1) means not available. Roster accurate as of May, 1957. Prepared from information supplied by Chief of Motive Power and Car Equipment, Canadian National Railways.

INFORMATION

Blowers going and white feathers curling skyward, two Pennsylvania-Reading Seashore Lines engines wait for second-trick crews on tracks just beyond coal deck and water plugs at Camden Engine Terminal. On the left, Pennsy's No. 120, a 2-8-0.
Aaron G. Fryer, 6001 Drexel Rd., Philadelphia, Pa.

1 *If piggyback is as important as the article in your February issue states, why are so many Class 1 roads reluctant to take it up?*

The main objection is rate structure. Railroads actually lose money on some piggyback hauls. The Southern puts it this way:

"Frankly, until piggyback shows promise of putting something in the piggy *bank*, Southern is not interested. When hauling highway truck-trailers on railway cars gives some evidence of adding to net income, Southern will be in the piggybank business in a hurry. Meanwhile, recent press reports indicate that some of the carriers that took the initial plunge into piggyback are not so happy with it now.

"Southern did not jump to any quick conclusions on the subject. Three senior members of the president's staff spent most of their full time for five months in an exhaustive study of every piggyback operation of any consequence in this country. They concluded that Southern cannot make any money by hauling loaded trailers around the country with a traffic pattern such as we have. Believing this, we would hardly be justified in spending the considerable amounts of money it takes to 'tool up' for piggyback.

"There are other problems. Our lines in Kentucky, for example, have close tunnel clearances that would require us to buy expensive depressed-center equipment. Tunnel clearances at Washington also would be a bar to inter-railroad movement."

2 *Where is the world's longest railroad station platform?*

At Skorvik, Sweden. The platform is 2,470 feet long.

3 *Can you furnish details on the holdup and murder in the Great Northern depot at Moorhead, Minn., in* 1917?

Yes. Our information comes from R. J. Murray, GN's chief special agent, who was with the Moorhead sheriff's office at the time George Sheffield, the ticket agent, was shot.

Two men were arrested, one at Fargo, N. D., and the other at St. Cloud, Minn. The first, named Anderson, admitted the shooting, and is serving life in the Minnesota State Penitentiary at Stillwater. Mr. Murray believes the other man served ten years and was released.

4 *What arrangement exists between railroads for use of competitors' rails during a wreck or washout?*

Trackage rights are arranged between them on a per-mile rental basis.

BOOTH

ASK BARBARA: **Railroad questions are answered here every issue by our research expert—as many as space permits. Top priority is given to subjects that seem to be of wide general interest. Address Miss Barbara Kreimer, *Railroad Magazine*, 205 E. 42nd Street, New York 17, N. Y. No replies will be sent by mail.**

5 *Has tape-recording ever been used to direct train operations?*

Yes, once that we know of, on the Seaboard Air Line between Jacksonville and Miami, Fla. While CTC machines were being moved, 142 switches and signals on the 406-mile line were controlled from 30 catalogued libraries of tape-recorded sound impulses, taken previously from actual signals transmitted from the CTC machines. The dispatcher played back the tapes into the signal network to activate a switch or signal any time or place along the line.

6 *How many electric locomotives are operating currently in the U.S.?*

About 600.

7 *Do you have any information on John J. Hennessey, former Master Car Builder of the Milwaukee Road?*

Yes, his name is famous in railroad circles. Mr. Hennessey hired out to the Milwaukee as a car repairer in 1871 and was appointed M.C.B. in 1888, a position he held until retirement in 1918.

During his administration the Milwaukee Shops increased their freight-car output from one to 28 a day. His model mail car won honorable mention at the Chicago World's Fair and the Paris International Exhibition.

Mr. Hennessey initiated many improvements in car construction, notably the steel center sills in conjunction with continuous steel body bolsters, door fixtures, a rocker frictionless slide bearing, and a friction draft gear.

He was active also in the Association of American Railroads, serving as president of its Mechanical Division in 1892. He died in 1938 at age 93.

8 *Who was the first United States President to ride behind a locomotive?*

Andrew Jackson. The event took place June 6, 1833, when he and his party traveled 12 miles on the B&O from Ellicott's Mills to Baltimore, Maryland.

Old Hickory's administration marked the real beginning of the railway era in America. When he retired from office in 1837, more than 1,300 miles of rail lines were in operation.

9 *What is the consist of the* Roger Williams, *the New Haven's latest lightweight passenger train?*

It has two streamlined RCD head-end units with cab control stations at either end of the train, and four intermediate coach units without control stations.

10 *Do blind passengers pay full fare when traveling by rail?*

Not *per se*. A special amendment to the IC Act in 1927 authorized railroads to grant them the right to travel with a sighted companion for the cost of one fare. Travel coupon books make such travel possible.

In some states the one-fare concession applies either to first-class or coach fares. In other states all tickets must be purchased at the first-class rate. The one-fare concession does not apply to

You can find piggyback on about fifty Class 1 roads in North America, including the Santa Fe, but the others still are unconvinced of its practical value to the industry.

Aaron G. Fryer, 6001 Drexel Rd., Philadelphia, Pa.

Winter symphony: Two PRR P5 motors proceed against current of traffic in heavy snowstorm to enter Overbrook, Phila., yard. Train is a mixed merchandise. Pic taken from station platform.

special-excursion or reduced round-trip fares, nor does it apply to Pullman space.

Coupon books are issued by the American Foundation for the Blind, 15 West 16th St., New York 11, New York.

11 *What is a tie spacer?*

A new type of machine for correcting tie spacing and slewed tie conditions, the basis of which is a set of hydraulic shifting devices which operate when it is positioned over the tie. Either or both devices can be lowered and clamped automatically to the ball of the rail. Hydraulic pressure applied to move the tie, transmits force to the rail, and thereby results in a relatively light-weight unit.

12 *Are any four-track railroad tunnels built under water?*

Only one: the Pennsylvania's tunnel under the East River, New York City, a curved tube 14,172 feet long. Not even the New York subway system has such a tunnel.

13 *Do many big North American railroads still operate with steam?*

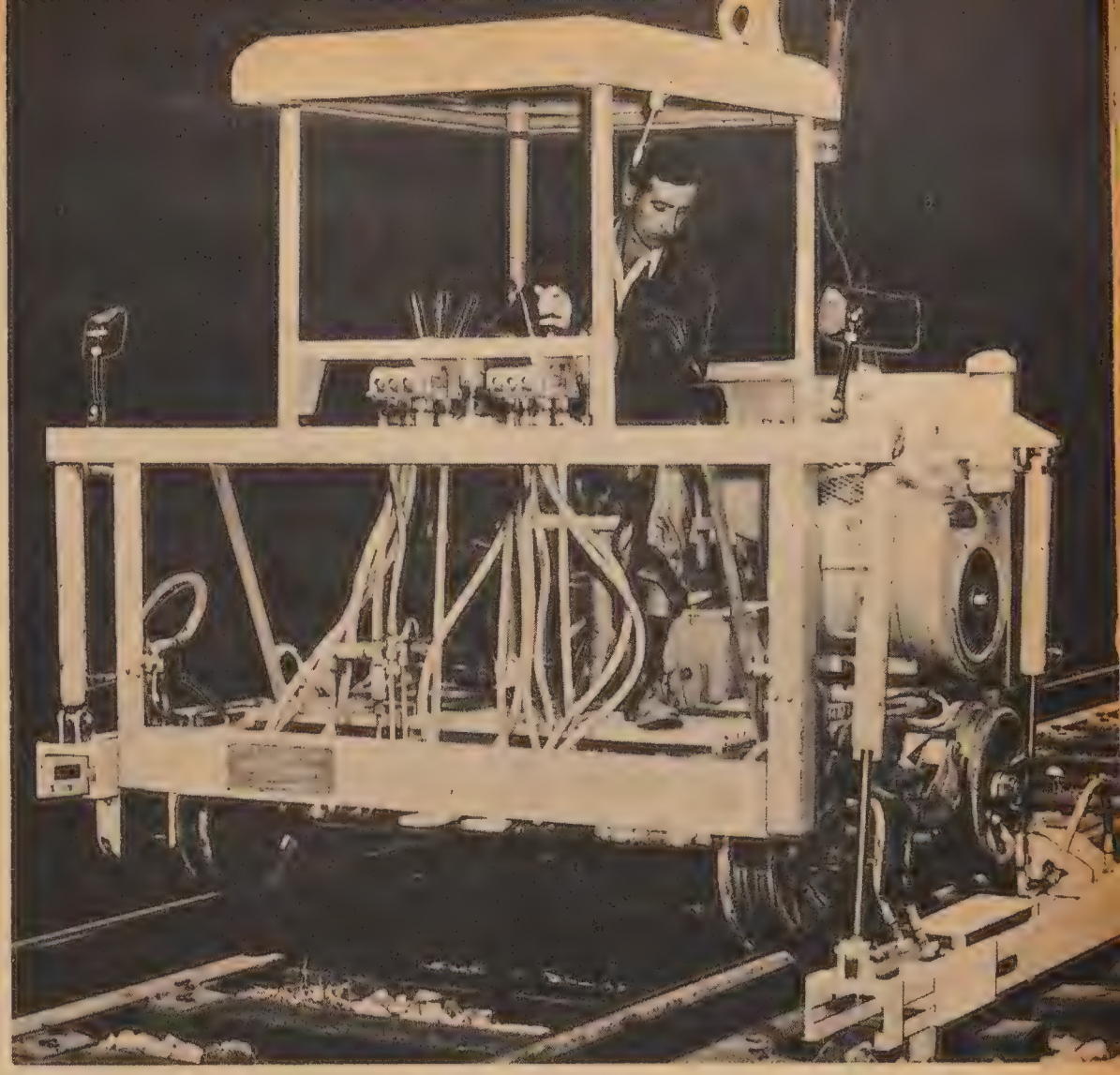
Only a few, including the Pennsylvania, Illinois Central, Norfolk & Western, Nickel Plate, Canadian Pacific, and Northern Pacific still use a dwindling number of steam locomotives.

14 *What is the origin of "tank town" and "jerkwater?"*

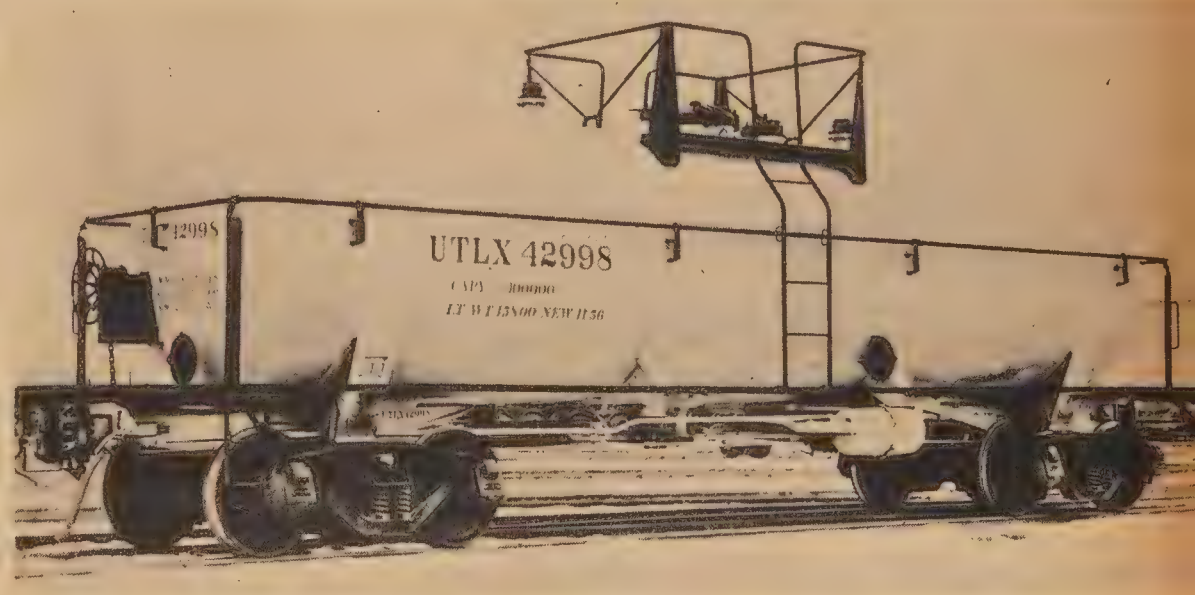
They are old railroad terms which have become part of our language. A tank town was a place so small that it was dominated by the trackside water tank. Jerkwater resulted from the invention of a track pan and scoop that permitted locomotives to take water on the fly. Since these installations invariably were in tiny communities, and since they permitted locomotives literally to "jerk" water without stopping, any small village came to be known as a jerkwater town.

15 (a) *How many steam locomotives does the Grand Trunk Western operate in regular passenger service?* (b) *Explain the meaning of designations K-4-b and 41% on GTW steam locomotive No. 5634.* (c) *Also the function of 5634's auxiliary stack, set about three feet forward from the cab, which gives off steam when the engine is stopped but not while in operation?*

(a) Ten. (b) K-4-b is the classification and 41% is the haulage rating. (c) This is a blow-off cock separator. Blow-off cocks are connected to it and when opened boiler water passes through the separator, where water and steam are separated—the water being discharged to the track between the engine and tender, and the steam liberated to the atmosphere at the top of the separator.



RMC Tie Spacer has integral hydraulic turntable which allows operator to raise machine for reversing direction. Machine operates under its own power at 25 mph.
Railway Maintenance Corp., Pittsburgh, Pa.



New "Hot Dog" tank car weighs less and carries more than any other car of comparable comparison. It is easy to load and inspect; economical to operate and maintain.
Union Tank Car Co., 221 North La Salle St., Chicago, Ill.

16 *What is a "Hot Dog" tank car?*

A new insulated, multi-purpose pressure car for carrying anhydrous ammonia, acid and other low-pressure commodities. Manufactured by Union Tank Car Co., the new HD design eliminates the need for the conventional underframe and expansion dome previously required on all general-purpose tank cars. In the HD design the tank is used as a structural member and a container. Through a draft sill it is mounted directly on the trucks.

Denver & Salt Lake No. 303, a 4-6-0 type, heading west with train No. 1 in the Colorado Rockies, 25 miles west of Denver.
Harry R. Griffiths, Jr., 821 Houston Rd., Boise, Idaho.

3013

17 *Give me a brief rundown on the Fred Harvey restaurant system.*

Harvey Houses were established along the Santa Fe as early as 1876. Twelve years later the Fred Harvey Co. instituted dining-car service on Santa Fe trains, and the need for track-side restaurants diminished. However, to this day the Harvey name is closely associated with railroading. Fred Harvey restaurants are operating in such stations as Los Angeles, Kansas City, Cleveland, St. Louis, and Chicago. The system also maintains resort hotels at Santa Fe, Grand Canyon, and Death Valley. Harvey restaurants soon will be built along Illinois' new toll highway.

The old and the new: One of the original Harvey Houses (above) offers a striking comparison with The Iron Horse, a new Harvey cocktail room in Chicago's Union Station. Puffing insignia over the entrance invites all to climb aboard and enjoy a charming blend of century-old railroad tradition and modern style and service.

Haywire Mac discussed the romantic life of Harvey waitresses in "Boomers and Their Women" in our Dec. '57 issue. The same subject was covered fictionally by E. S. Dellinger in a novelette entitled "Harvey House Girl" which we published in March '35.

18 *Is it true that the Pennsy Q-2 was designed to be the world's most powerful steam engine at low speeds?*

No. Incidentally, this type has been scrapped.

19 *What is a "hobo basket"?*

It's the railroad employes' way of collecting for the March of Dimes campaign. The basket goes from one railroad to another, "bumming" money to aid in the war against infantile paralysis. In a recent year it traveled more than 10,000 miles over 19 different roads, visited 29 states, and collected more than $11,000 from railroad men and women.

20 *What is the total railroad mileage on the entire globe?*

According to the latest *Directory of Railway Officials and Year Book*, published in London, there are 774,000 miles, distributed percentage-wise as follows: North America, 36.8; Europe, 32.7; Asia, 12.6; South America, 8.3; Africa, 5.7; Australia and New Zealand, 3.9.

21 (*a*) *Was compressed air ever used to run trains?* (*b*) *Could a compressor running all night charge an air locomotive sufficiently to pull a 100-car freight 100 miles in two hours?*

(a) Yes, by industrial plants and coal mines for short hauls, but never on full-sized trains. Back in 1870 it was used experimentally on an El train in New York City. (b) No.

22 *What happened to the motive power and rolling stock of the recently-abandoned Elkton & Guthrie?*

There weren't any. The 11-mile, 72-year-old Kentucky road was operated by the Louisville & Nashville on a lease and folded up when L&N refused to renew it.

23 *Does the Western Pacific have a clearance car?*

No. Approximately every three years this road borrows one from the Pennsylvania. It is a special "feeler car" for measuring heights and widths of railroad tunnels and bridges. With an accurate record of such measurements

Burdell Balgrin, Owen, Wis.

Coal tower on the Duluth, Winnipeg & Pacific, part of Canadian National RR.

WP's engineering department is able to okay the handling of special shipments of equipment and commodities loaded in open cars.

The clearance car is a conventional passenger coach divided into five compartments. The forward one contains 126 measuring instruments ("cat's whiskers") which extend from the sides of the car and in a semi-circle above it. The other compartments are quarters for the crew.

24 (*a*) *What happened to the Boston & Maine Mountain-type locomotives* (4100 *class,* 4-8-2*'s*) *acquired by the Baltimore & Ohio?* (*b*) *Please list B&M and B&O numbers.*

(a) The following were scrapped by Nov. 1, 1956: Nos. 5653, 5655, 5656, 5659 and 5660. These were B&M designations. (b) Those in service are:

B&M Class & No.		Built	B&O Class & No.	
R-1a	4100	1935	T-4	5650
"	4101	"	"	5651
"	4102	"	"	5652
"	4103	"	"	5653
"	4104	"	"	5654
R-1d	4105	1937	"	5655
"	4106	"	"	5656
"	4107	"	"	5657
"	4108	"	"	5658
"	4109	"	"	5659
R-1c	4110	1939	T-4a	5660
"	4111	"	"	5661
"	4112	1940	"	5662

25 (*a*) *Where, in the United States, is the longest stretch of track without a branch, junction, or rail crossing?* (*b*) *The longest steel and concrete railway bridge?*

(a) On the Burlington between Edgemont, S. D., and Huntley, Mont., 353 miles. (b) Louisiana: Huey Long Bridge over the Mississippi, 4.4 miles long, including approaches.

26 *I saw a diesel train on the New Haven's juice line* (*the New York Connecting RR.*), *and wonder if the line is to be completely dieselized.*

We know of no immediate plan.

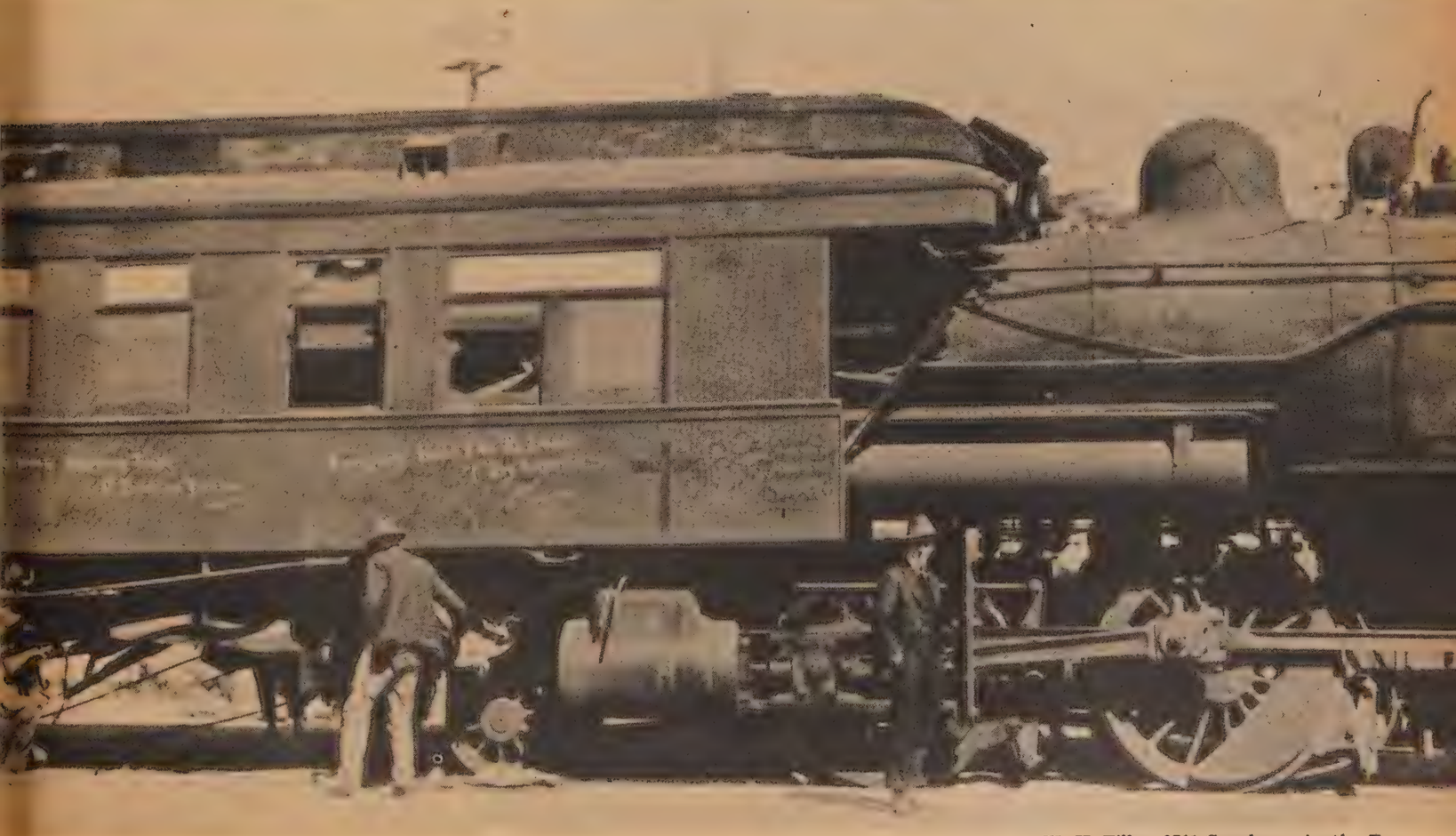
27 *What is an orphan railroad?*

An isolated branch, track of which has no physical connection with the main line. For example, the 20-mile Clarksville & Princeton branch of the Louisville & Nashville in western Kentucky is 10 miles from the nearest other L&M track. Originally it was linked to the parent railroad, but leasing part of it to the Illinois Central deprived the rest of a direct connection with the L&N.

28 (*a*) *How can I become a locomotive engineer?* (*b*) *Would the fact that I wear glasses keep me from getting such a job?*

(a) The Brotherhood of Locomotive Engineers advises that the first step is to contact a railroad employment office and apply for a fireman's job. After being assigned to the fireman's extra

The war ended here for twelve soldiers when Katy freight plowed into troop train near Austin, Tex., in the summer of 1918.



W. H. Tilley, 3701 Speedway, Austin, Tex.

list, the long training of apprentice engineer begins. Such training usually takes 20 years. Seldom is a fireman promoted in less than 10. (b) Very few roads consider this an obstacle.

29 *What is a compartmentizer?*

A device manufactured by Pullman-Standard to facilitate the safe loading of boxcars without the sacrifice of valuable car space needed to build bracing and blocking. It also obviates the necessity of installing cumbersome and expensive lading protection-device parts which complicate loading operations. The new system positions the lading according to unloading points and locks each compartment in place. It is designed to save time and eliminate confusion and the possibility of pilferage.

30 *Aside from the New Haven's Talgo-type trains, do any diesel engines run daily into New York's Grand Central Terminal?*

Yes. The New Haven's "Hot Rod" RDC, a modified RDC design, GM-EMD Model FL-9, and New York Central's DES-3, Nos. 526-566. The latter does not run daily, but is equipped to operate into the terminal.

31 *A brief history, please, on the Pennsy's* Jeffersonian.

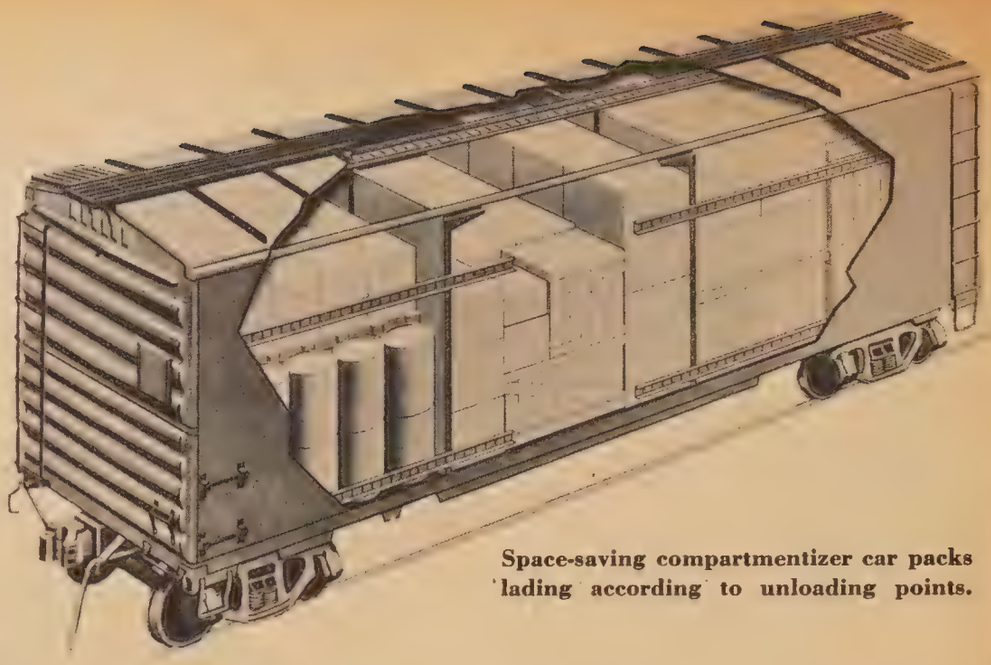
Established as an all-coach reserved-seat train between New York and St. Louis on April 27, 1941, a companion train to the all-Pullman *Spirit of St. Louis*, the *Jeffersonian* continued operation until April 26, 1953, when it was consolidated with the *Spirit* and became a combined Pullman and coach train.

However, in 1950 from June to September, the *Jeffersonian* did not operate, because the *Indianapolis Limited* (a Pullman and reserved-seat coach train) went into service between New York and Indianapolis during that period. The arrangement was not successful and the *Jeffersonian* was restored.

The *Indianapolis Limited* was subsequently established between Columbus and Indianapolis, with through cars from and to New York and Washington. On Oct. 27, 1957, the service was combined with the *Spirit of St. Louis* to and from New York, and the *Penn Texas* to and from Washington.

32 *Which was the first interstate railroad operated in the United States?*

The Petersburg (now part of the Atlantic Coast line) which was opened in 1833 between Blakely, North Carolina, and Petersburg, Virginia.



Space-saving compartmentizer car packs lading according to unloading points.

RUNNING EXTRA

WE neglected to mention that our data on American railroad memorabilia (Item 21, Feb.) was furnished by Charles E. Fisher, president of The Railway & Locomotive Historical Society.

A partial list of European countries that have railroad museums comes from Roger Searle, Box 403, Napa, Calif.:

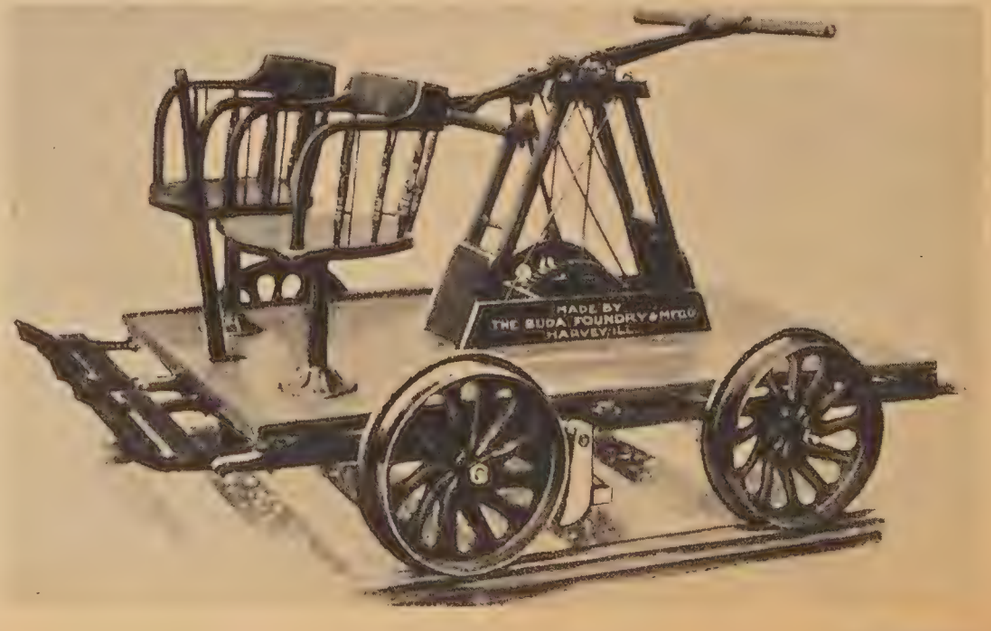
Austria: Vienna. *Finland*: Helsinki. *France*: Lyons. *Germany*: Berlin, Dresden, Nuremberg, Wuppertal. *Great Britain*: Euston, London, York. *Netherlands*: Utrecht. *Norway*: Hamar. *Poland*: Warsaw. *Sweden*: Stockholm, Tomtiboda, Ystad.

WHILE we're on the subject, Mrs. Al Chamberlain, 332 West 79th St., Seattle, Wash., says that her state has more than one engine exhibit, and lists the following displays: A Northern locomotive at Spokane: SP&S No. 539 (built for NP in 1917) at Vancouver; Southern Pacific, Union Pacific, and SP&S engines at Portland; Seattle's Woodland Park has Great Northern's No. 1246, a 2-8-0 Consolidation (built by Baldwin 1907); and Tacoma has NP's No. 1364 (a 4-6-0).

LEONARD SCHROEDER, Box 308, Brisbane, Calif., adds the name of another line that changed from electric power to steam, *not diesel*. (Item 33, Dec. issue):

"Before 1916," he writes, "I believe an electric interurban running east out of Davenport, Iowa, or Moline, on the Illinois side of the river, changed to

How many old track hands remember this elegant type of two-seated inspection car? According to Bob White, Grand Trunk section foreman, who supplied the picture, you had to be on your toes when this chariot came around the bend with a couple of brass collars aboard. Car was built by Buda Foundry & Mfg. Co., Harvey, Ill.



steam when a coal field was opened in the area."

REFERRING to Item 16, Dec. issue, Bud Freehling of W. T. Freehling & Sons, Marwood, Pa., writes:

"The Porta-Stop portable car stop is of interest to us, since we operate a retail lumber yard and have our own siding for car unloading. Many of our shipments come from the Northwest, which is mountainous. In moving the cars for unloading we have trouble stopping many of them, due to thin 'shoes' and generally bad brakes. We'd like to contact the Western Railroad Supply Co. for more data on the Porta-Stop."

Editor's note: The address is 2400 S. Ashland Ave., Chicago 8, Ill.

CLARENCE EVERETT, 422 Manchester St., Aurora, Ind., wants more information about the Aurora Locomotive Works and C. A. Olmstead & Co., Aurora, Ind. (Item 22, Dec.)

FURTHER data on red locomotives comes from several sources:

C. A. Hulick (a Pennsy man for nearly 50 years), 20 Shanley Ave., Newark, N. J., says that a red K-4, No. 5409, pulled the *Pennsylvania Limited* (now the *Broadway Limited*) from old Manhattan Transfer to Broad Street Station, Philadelphia.

Chicago & Alton's No. 503, a Brooks-built 4-4-0, was painted two shades of red, according to John W. Merrill, director of two-foot-gage Edaville RR., South Carver, Mass.

"I saw her in Chicago around 1905," he recalls. "Later the C&A bought some ten-wheelers to replace its 4-4-0's and painted them red. Here on the Edaville we have a Monson two-footer painted red. I understand, too, that the Canadian Pacific had some red engines. Will a reader supply details?"

HUGH Stephens, 223 Trenton Blvd., Sea Girt, N. J., answers Hal Lowe's query regarding the purchase of a used narrow-gage engine and some cars. He suggests trying Sayre & Fisher Brick Co., Sayreville, N. J. This company is gradually disposing of its clay-pit equipment. Locomotives are steam "dummies" (no tenders).

WHO can furnish information about the Boyne City RR. for Tom Hickman, 220 S. Maple Ave., Oak Park, Ill.?

At Boyne Falls, Mich., he saw what appeared to be a Whitcomb diesel switching a few cars on the Pennsy siding while a Pennsy freight pulled in. Is it possible that the Boyne City line is Pennsy subsidiary? ●

Mike Runey, 5 Mountainview Drive, Pine City, N. Y.

Steel arms locked in position swing out toward track, and slim pouch with outgoing mail at Cameron Mills, N. Y., on the Erie, is ready to be picked up by highballing *Erie Limited*. Frank Reynolds makes sure pouch is latched in place.

BOOKS of the RAILS

by P. C. GRAVES

Canadian National Railways.

This Bible rack was installed in a Central Vermont coach after state legislature decreed that conductors read the Scriptures to passengers traveling on Sunday.

THE RAILROAD PASSENGER CAR, by August Mencken, 209 pages, Johns Hopkins Press, Baltimore 18, Md., $5.

A pictorial study of railroad passenger service over the last century based, to some extent, on the author's experiences as an engineer active in railroad construction before World War I. One section is devoted to anecdotes, both tragic and humorous, written by passengers who rode the old-time trains.

Among the surprises uncovered by the author is the fact that many of the conveniences offered on today's crack trains had been introduced by the time of the Civil War: sleeping cars, dining cars, streamlining, and even air-conditioning. Mr. Mencken's book is an informative and handsome addition to railroad lore.

DIRECTORY OF RAILWAY OFFICIALS & YEAR BOOK, 1957-1958, Tothill Press, Ltd., 33 Tothill St., Westminster, London, S.W. 1, England, 220 pages, 40 shillings.

This sixty-third edition has a listing of common-carrier railroads all over the world, as well as a directory of British railways and officials, trade unions, statistics, and other useful information. There is a complete directory of British locomotive builders and manufacturers of railroad equipment.

THE MANCHESTER & ONEIDA RAILWAY, by Frank P. Donovan, Jr., State Historical Society of Iowa, Iowa City, Iowa. Clothbound, $2.

Short-line fans will be delighted with this account of a rural railroad's life span. It is told in detail, entertainingly, and with some really good photos and a map. The author is a popular contributor to *Railroad Magazine*.

RIGHTS OF TRAINS (5th edition), by Peter Josserand, Simmons-Boardman Books, 30 Church St., New York City, 549 pages. $6.

This book analyzes the standard code of operating rules of American railroads, both single and double track. It clearly explains and illustrates train rules, train orders, transportation problems, block signaling and interlocking rules, as well as new special rules for CTC.

Josserand writes with authority. A Western Pacific train dispatcher, he is rules consultant of the Brotherhood of Locomotive Firemen & Engineers and a frequent contributor to our magazine. *Rights of Trains* is an essential for train dispatchers, operators, train and engine crews, switchmen, and operating officials.

RAILROADS TODAY AND YESTERDAY, by Walter Buehr, G. P. Putnam's Sons, 210 Madison Ave., New York City, 72 pages, $2.50.

Over a century of railroad progress is covered in this little book which tells about the new look of today's glamor trains and electronic automation, along with fascinating side glances at the old. Drawings by the author are appealing and constructive.

BULLETIN NO. 97, Railway & Locomotive Society, Baker Library, Harvard Business School, Boston, Mass., 93 pages. Members $2., non-members, $3.

The lead article, *The Railway of the New York and Brooklyn Bridge*, by Charles S. Small is an interesting account of a major engineering feat with a fine collection of photographic illustrations.

Other *Bulletin* items include *Some Early Brown Locomotives on the CPR, More Otto Mears Passes, Elliott's Engines on the Reading, The "Clover Leaf," Cylinder Cars,* and a miscellany of good reading matter for serious railfans.

FACTS AND FIGURES ABOUT ENGLISH RAILWAYS, 1957 EDITION, British Transport Commission, 222 Marylebone Rd., London, N.W. 1, 48 pages. Free.

A handy pocket-sized pamphlet, with an amazing amount of information on all phases of British rail transport. In spite of its technical nature, the report is handled in a readable fashion. Illustrations and graphs contribute to its general interest.

80 YEARS OF TRANSPORTATION PROGRESS, St. Louis Southwestern Ry., Public Relations Dept., 1517 West Front St., Tyler, Texas, 98 pages. Free.

Written to commemorate the 80th anniversary of the first link of the Cotton Belt, this is a worthwhile reference book, with a collection of rather good photographs.

EAGLE BOOK OF TRAINS, by Cecil J. Allen, published by Hulton Press, Ltd., London. Distributed by Sport Shelf, 10 Overlook Terrace, New York 33, N. Y., 192 pages, $3.50.

A comprehensive book on railroading all over the world, told from the British point of view, with some striking comparisons and sidelights. Illustrated with a fine collection of photographs. For rail fans of all ages.

NARROW GAUGE IN THE ROCKIES

Announcing a new book by Lucius Beebe and Charles Clegg, to be published in June by Howell North Press, 2801 Shattuck Ave., Berkely, Calif., as a de luxe pictorial treatment of Colorado's three-foot carriers.

The book is being printed on 8x11-inch pages of coated stock, in both a signed limited edition and a trade edition, with three full-color reproductions of Howard Fogg paintings, endpapers by Capt. Frederick Shaw, and many choice photographs. Three men have contributed sentimental reminiscences. Special typography by *The Territorial Enterprise*, Virginia City, Nevada, of which Beebe and Clegg are proprietors.

Beginning in our next issue, *Railroad Magazine* will carry, exclusively, two chapters of *Narrow Gauge in the Rockies* prior to book publication.

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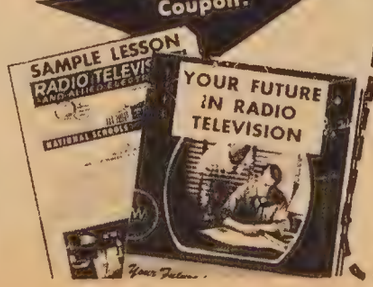

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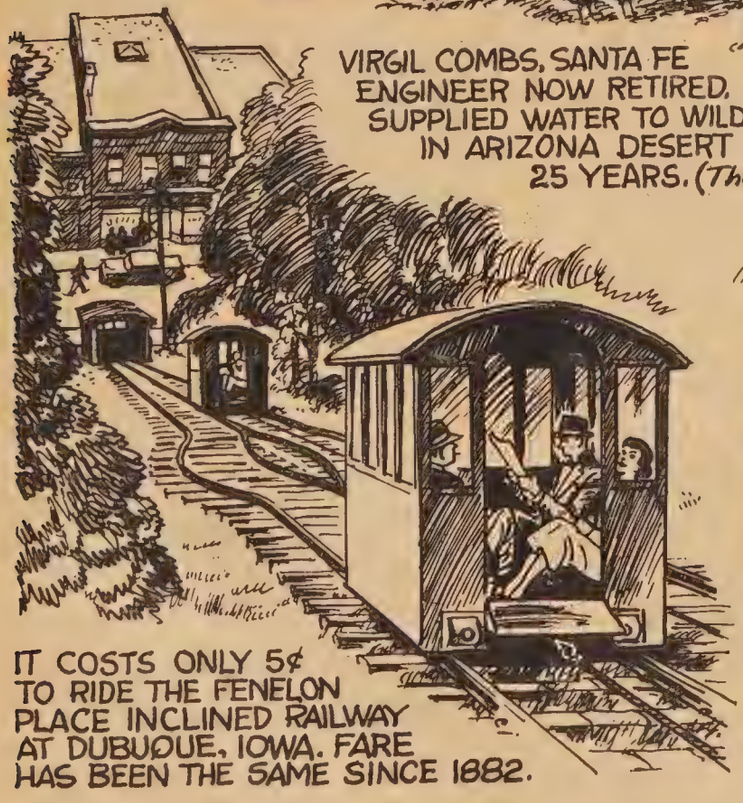
Along the Iron Pike

by Joe Easley

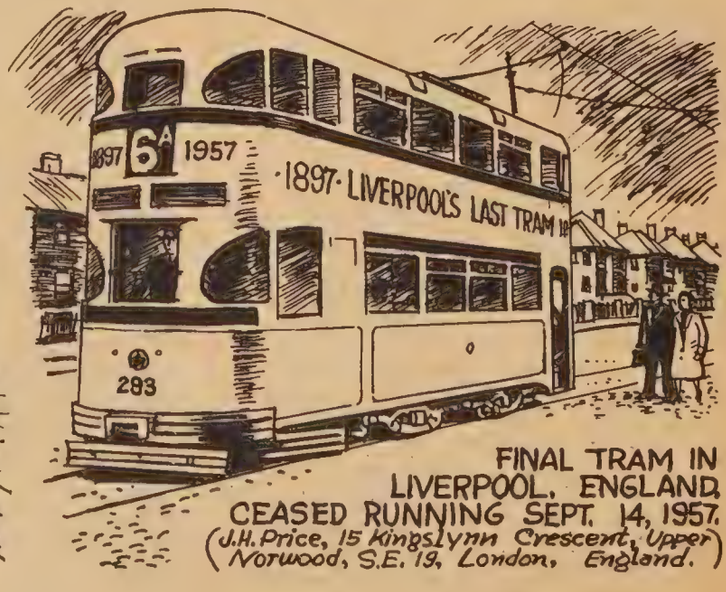
ONE OF THE FEW RAILROAD WOMEN TICKET AGENTS IN U.S. IS MISS MARCIA EARLE ON THE BURLINGTON AT McCOOK, NEBRASKA.

NORTH AMERICA'S LAST BROAD-GAGE ENGINE, THE *OTTAWA*, BEGAN RUNNING ON 5½-FOOT-GAGE MONTREAL & BYTOWN RY. IN 1854 AND WAS SCRAPPED IN 1914. (*Canadian RR. Historical Ass'n, 741 42nd Ave., Lachine, Montreal, Canada*)

VIRGIL COMBS, SANTA FE ENGINEER NOW RETIRED, SUPPLIED WATER TO WILDLIFE IN ARIZONA DESERT FOR 25 YEARS. (*Thelma Heatwole*)



IT COSTS ONLY 5¢ TO RIDE THE FENELON PLACE INCLINED RAILWAY AT DUBUQUE, IOWA. FARE HAS BEEN THE SAME SINCE 1882.



FINAL TRAM IN LIVERPOOL, ENGLAND, CEASED RUNNING SEPT. 14, 1957. (*J.H. Price, 15 Kingslynn Crescent, Upper Norwood, S.E. 19, London, England.*)

RADIO AND TV

(Continued from page 24)

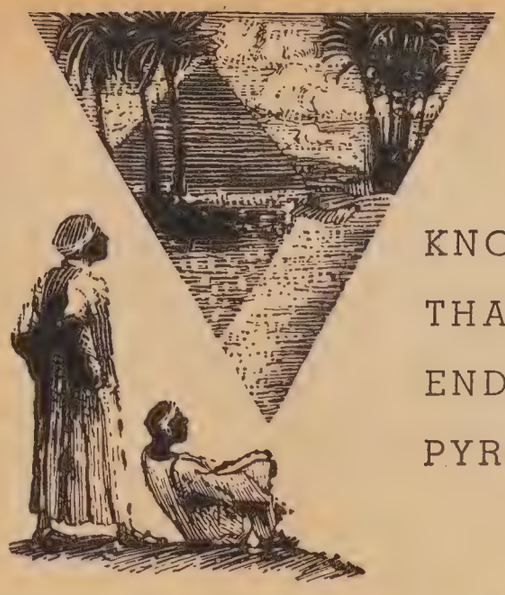
the 800-foot freight shed at San Francisco, which enabled the foreman to watch operations from his office. One lens was of the wide-angle variety; the other was a telephoto of the "pan and tilt" variety for pinpointing any operation.

Yes, the use of television in railroad operation is spreading. The Rock Island installed a camera at their Englewood passenger station in Chicago, near the Pennsylvania crossing, which could turn in a complete circle to permit the station-master to observe the loading and unloading of passengers, mail, and express. Thus he can predict accurately when trains will be ready to move. This installation is interesting for the reason that the broadcast was transmitted by microwave to the downtown general office at LaSalle Street, six miles distant, proving that where cable cannot be installed economically for transmitting a picture, microwave is feasible.

A problem created by the consolidation of two towers at Pittsburgh, Pa., on the Pennsylvania was solved with television. From Pitt Tower the train director could not see the switch engine working at the postoffice, where some 150 moves daily involve the use of the main track. To coordinate the movements, a TV camera was focused on the four spur tracks running into the postoffice basement, and now the train director has constantly before him a picture of switching progress. This was the first permanent TV installation on the Pennsy, although not the only one.

Even more widely publicized is the use of TV in the unique ticket sales and service at New York's Penn Station. TV cameras flashing facts and figures on screens make information more readily available than it used to be. And as time goes on the carriers will find many new uses for radio and TV.

My next article will show what is happening to the railyards. ●



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AMENHOTEP IV
FOUNDER OF EGYPT'S MYSTERY SCHOOLS

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IN SEARCH of the SUN

"Mister," Eddie Sand piped politely, "could you spare a fellow two bits?"

A Boomer's Urge to Migrate Leads Him Into Someone Else's Love Affair, a Zulu Car, and Trouble With a Trainmaster

by Harry Bedwell

SPRING in Iowa that year was wet and sunless. Rain kept slanting down, intermingled with sleet. The prairie mud seemed to be without a bottom, and anyhow Eddie Sand had been working for five months on the same dreary telegraph job. Long enough. The inevitable urge to migrate made itself felt. He'd have to see the sun again.

The chief dispatcher sent an operator to relieve him and supplied a pass to Omaha. But when Eddie arrived in Omaha the city looked like something the Missouri River had become irritated with and kicked aside, and it still rained when it wasn't sleeting. So the boomer turned south. Local passenger conductors were obliging and he rode the cushions to St. Joe, where he found an odor and no sun, and then he kept on traveling, south by west.

More of the murky flat country drifted past coach windows dulled with rain. The sun could well be beyond the next mountain range, Eddie told himself, but at that division point he ran out of benevolent passenger conductors.

His luck changed because of a trainmaster named "Bull" Keeley. Apparently Mr. Keeley was bent on making a name for himself. Although he had come only recently to his present high post, he already had the scalps of several trainmen curling by the fire. You got your head cut off if you were caught carrying anyone free, especially boomers. Mr. Keeley was kin to a big brass collar and believed in making the most of it.

So Eddie sought deadhead transportation down in the freight yard, where Mr. Keeley's power was somewhat less in evidence, and the first man he ran into was a former associate, Hi Wheeler by name. Hi was sauntering out of the yard office, tucking a train book, waybills, and tissue orders into the pocket of his slicker. The metal plate on Hi's rubber hat indicated that he was now a conductor.

"Mister," Eddie piped politely, "could you spare a fellow two bits?"

Hi Wheeler straightened his six feet three, turned on him belligerently and then yelled, "Eddie!"

He embraced the boomer and pounded him and said how doggone glad he was to see him again. It was not until Eddie had wedged an elbow into his side that the conductor let go his hold.

"You look like you been eatin' regular," said Hi. "Where you been?"

Eddie replied. "That last job of mine was brisk enough to keep me awake at nights and, besides, there was a girl at my boarding house. She didn't do the cooking—her mother did it—which was all right with me. Fact is, the gal didn't do much at all except keep herself pretty. She was amusing for a while."

Hi nodded. "Yeah, I know the type."

"What about you." asked Eddie. "How come you left the Southwestern Pacific?"

"Oh, it's a long story. You remember that pretty black-haired girl named Gladys who clerked in Skowinski's store? She and I are gonna get married. I'm meetin' her at the Junction tomorrow morning."

"Married?" Eddie gasped.

"Sure. Why not?"

"Well, congratulations, Hi!"

The beanpole explained: "It works in just right. I'm takin' out Forty-seven now, and if you wanta come along and be my best man at the ceremony you can ride the crummy."

"Anything for a pal," Eddie agreed, "but it's against my better judgment."

"Doggone!" Hi exulted. "Come on!" They tramped down through the siding while rain lashed their faces. "But lookit," Hi cautioned, "if the trainmaster shows up I'll hafta hide you while he's around."

EDDIE asked grimly, "Why isn't something done about that guy?"

"It will be," Hi said. "He ain't met

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the right man yet on a dark night." The conductor sighed. "We had a fine old super named Dan Welby. Tough, if you didn't hit the ball. But *I* got only fifteen brownies off him so far. Then he had to go to the hospital. He's gettin' along in years and the talk is they're gonna move him out. That trainmaster, Keeley, is kinfolk to somebody 'way up and they sent him down here to run the division in Welby's absence. He's after the Old Man's job."

Eddie climbed into the weather-warped red caboose and stowed his suitcase under a bunk. Then he took out a book from his raincoat pocket, settled into a chair, and began to read. Forty-seven, a mixed freight doing local work, whistled off.

They headed into a cloudy sunset. An hour later they saw the red of a semaphore leering through the mist. Then the lights of a town grew all around them and Forty-seven eased to a stop.

"Some LCL to unload here," Hi said, "the empties to set out."

Conductor and brakeman went out into the wet. Eddie read placidly. Hurried feet slapped suddenly on packed wet cinders, and the caboose shuddered as someone jumped aboard. Hi stormed in the door.

"That damned trainmaster is here, ridin' into the terminal with us!"

Eddie Sand closed his book. "Is this a town you can stay all night in?"

"You ain't stayin' here. I need to have you along to witness the weddin'. We've got an emigrant car in this train, with a kid in charge of the livestock. I talked to him as I came back. It's okay and he's got it all fixed up for comfort. Come on!"

Eddie slipped into his raincoat and followed the skipper through the drizzle.

"Old Bull Keeley," Hi muttered, "says we're puttin' in too much time gettin' over the road, addin' up overtime, and usin' too much slag which on this pike they call coal. He's comin' along to show us how to make time."

A dim light shone from the crack in the door of the zulu car. Eddie climbed inside.

"Here he is, son," Hi said. "You see that he rides nice and easy."

"Betcha." The youth was chunky, with a brush of yellow hair. He straddled a bench under a lantern hung by wire from the roof, and he was cleaning and oiling a set of harness. A nondescript shaggy black dog stood beside him.

"My name's Chad," he said to the telegraph operator, "and my dog is Pomp."

Beyond him in pens were two big roan horses and a red cow. The animals stared mildly at Eddie.

"The mare's name is Carrie," Chad introduced. Carrie put out a nose to be petted. "The other horse is Boxer." Boxer snorted and shook his head. "And this is Mrs. Murphy," Chad said of the cow. Mrs. Murphy lowed at the boomer.

"They have nice manners," Eddie decided. He slid the door shut. "In case the trainmaster goes by," he said.

"Want to read your book?" Chad asked. "Sit in the rocker and I'll fix a candle for you."

The other end of the car was piled high with household effects. Eddie got the rocker, sat by the candle, and leaned back. Then all at once something clattered down over the packing boxes and jumped to the floor. It was a black and white billygoat.

"That's Barbecue," said Chad. "I use him in roundin' up sheep."

FROM OUTSIDE the sounds of switching ceased. The air was filled with the bleat of sheep in distress and men's angry voices. Then feet splashed through the puddles beside the zulu car and the door squealed open. Hi Wheeler's head and lantern hung on the sill.

"Nice time we're havin' tryin' to load them ba-baas," he snorted.

"How come *you've* got to load them?" Eddie asked.

"We had the two empties which should have been set for loadin' today so they could go out on us. Somebody slipped. Keeley says we've got to load them, but the sheep don't know that. They refuse to come aboard. And Keeley and the two herders can't make 'em. If you like good, clean fun and want to learn some sheepmen's language, sneak over."

"Not interested," Eddie yawned.

"I hope," Hi fretted, "them critters don't delay us so I'll be late meeting Gladys in the mornin'."

"In case you personally want those woolies loaded," Eddie offered, "and nobody else is able to, Chad here would be glad to see it's done. This kid knows how to handle sheep."

"Betcha," said Chad.

Hi grinned. "Thanks, sonny. Come with me!"

The boy got up, wiped his hands, and slid into his slicker. "Come on, Barbecue!"

The goat arose from a bed of straw, shook himself, and suddenly confronted Hi in the doorway. He lowered his head with a sniff. The conductor promptly backed off.

The three human beings, followed by Barbecue, crossed the yard. The long chute at the stock pens winked with lanterns like fireflies in the darkness. They climbed the fence where a car was spotted. A dim light showed the long runway packed with sheep. They had halted on an invisible line just short of the car door, declining to go inside.

Chad pointed to a depression in the chute floor made by the running board being moved back and forth. The hole was filled with an inch or two of rain water.

"They don't like to cross that," the boy said. He dropped to the ground and walked away in the dark toward the back of the pens. Barbecue trotted amiably at his heels.

Bull Keeley and two sheepmen were in the muddy space between the flock and the car. Eddie picked out the trainmaster at once. Heavy, hunched shoulders, and head set between, without much neck. Bull voice too, as he flung it at the herders and their flock. The T. M. kept seizing sheep and thrusting them into the car. But they rushed right out again and crowded back into the drove. One ran blindly between Mr. Keeley's legs and tripped him.

Hi couldn't restrain his delight at that. "If you'll wait a minute," he said, "I'll show you how to lead them without breaking your neck."

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"I've been wondering where you'd gone," Mr. Keeler growled. "Get down here and go to work!"

"That ain't in any agreement ever I saw," said Hi. "Anyhow, I got a better man than you and me both comin' up to get them aboard."

"You heard me. Get in here and help!"

Hi began a hot retort, but Eddie kicked him and closed his mouth. Chad came back and climbed the fence.

At the other end of the chute the flock became agitated. Then Barbecue's horns and whiskers showed, nodding a friendly greeting to the sheep. The T. M. moving with assurance pushed through the head of the herd.

"A goat!" he sneered. "Wheeler, are you being funny with me?"

BARBECUE eyed the trainmaster with dislike and rocked gently back and forth like a hobbyhorse. Then he walked into the car. The flock stood in a compact mass and watched. Mr. Keeley asked, "What's he trying to do?"

Barbecue returned and circled through the flock and came out again. The tour was still fruitless.

"Haw-haw!" the trainmaster scoffed. "Call off your goat, Wheeler, and help shove these sheep into the car! We can't stay here all night."

Barbecue patiently made his way through the flock again, taking his time. When he came out he shook his head at Mr. Keeley. The trainmaster yelled and tried to kick his ribs.

Barbecue avoided the kick and made an abrupt decision. He rammed Mr. Keeley in the exact center and flattened him against the fence. The official let go his breath in a violent explosion, and sprawled in mud.

The billygoat then clattered up the running board. The sheep, in a sudden shift of mind, hurried in after him. They swarmed over Mr. Keeley; their pattering sharp hoofs packed him down as they hastened on.

A sheepman reaching a hand into his flock helped Mr. Keeley to the fence. The trainmaster's slicker was rent in several places. He spat saturated earth and curses.

As soon as Barbecue had lured all the sheep into the cars, Chad took the goat away. Eddie helped boost him into the zulu, and they closed the door and settled down.

As the engineer expertly tied the sheep cars into his train, feet hurried outside, the door was hastily pushed back, and Hi set a small bundle inside. The bundle stood up, murmured, and blinked round dark eyes.

"This is Carlotta," said Hi. "She's the section foreman's daughter at the Junction. She's been up here on a visit to her grandma and the old lady is sendin' her back home. Does it often. But she missed Seventeen today, so we got to take her."

"All right," Eddie sanctioned.

"She's got to ride with you," said Hi.

But Eddie couldn't see it. "If she was a big girl, and blonde, she'd ride in the caboose with you. You'd break your neck to see she did."

"Why, Mr. Sand," said Hi in pained reproach. "Talkin' like that to a man who's practically married right now. Lookit, Carlotta rides up and down all the time and they never bother to get a pass. Which was all right when Old Man Welby was runnin' the division. He'd even take her in his private car if it was hitched up and goin' her way. But this Keeley —aw, hell, Eddie, you can see how that adds up? I just asked him up at the station and you know what his answer was. He just boiled over."

"Then why don't you give the girl back to her grandma?"

"The old lady lives in the country and's gone back home. Carlotta, this is Eddie Sand."

"Ed-dee Sand," she said solemnly.

"She won't bother you none," Hi declared, and slid the door shut.

"Feed her," said Chad.

He produced a bucket and began milking the cow. Drawheads grumbled and air sneezed. The train moved again. Wheels clucked at railjoints. The wind howled. Chad gave them foaming tin cups of warm milk. Carlotta's eyelids fluttered and closed; she leaned against Eddie and went to sleep. The boomer wrapped her in a blanket on the couch.

FORTY-SEVEN plowed into the storm. Chad set up a kerosene stove to cook ham and eggs. Later they stopped at a station and picked up three cars of hogs.

Carlotta slept, a quiet bundle. Chad crawled onto a packing case and rolled himself in a blanket. Eddie read and dozed in the rocker.

Later he was awakened by a squawl of the side door. Hi's expression in the dim doorway was harassed.

"Now what?" Eddie demanded.

"Tied up again," said Hi. "This rain washed an old shanty halfway down the bank and tipped it so it won't clear the main line. Looks like it's all set to turn over and fall the rest of the way."

"Thank you kindly, Mr. Wheeler, for waking me up," Eddie glinted. "But what the hell am I supposed to do about it?"

"Well," Hi offered hopefully, "it seems like you was sent by Providence to see me through, and knowin' that I hafta meet Gladys in the mornin' I thought you might do somethin'."

The brass pounder considered a moment. Then he turned to Chad. "So you reckon we could do anything to help Mr. Wheeler?"

"Let's take a look outside first and see what's wrong," the boy said.

The rain still chuckled diligently in the dark world. The emigrant car had been stopped by the station. They had called the agent from his quarters above to inform the dispatcher of the situation, and as the three passed they saw him at the telegraph table copying an order. His semaphore was lit and out.

The engine's whistle blasted a call for the section foreman as the three straggled forward along the train. The headlight showed them a narrow shack tipped down a crumbling bank menacing the main stem. It was an abandoned bunkhouse of construction days.

They examined the setup from the

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darkness beside the locomotive. Mr. Keeley was out there scrambling about in mud and rain, appraising the prospect.

"Chad," said Eddie, "I saw block and tackle in your car, and a lot of rope. Think your team could pull that shack down and then snake it off the track if the section foreman helped you tie onto it?"

"Betcha," said Chad.

"And would your horses walk a narrow gangplank from the car to the station platform?"

"They'll go any place on solid footing if I tell them."

Hi climbed into the cab and cautioned the engineer to watch for his signals, and then the three went back to the zulu car. Hi set it at the platform, and he and Eddie bridged the gap with the running board. Chad harnessed his team and walked it across the plank and down the incline to the right-of-way. The agent helped to carry out the tackle forward to the tilted shack, while Eddie remained in the obscuring dark.

Mr. Keeley made an uproar at the sight of the cavalcade. "What have you got now, Wheeler? Some more of your circus?"

"Hiram of the helpin' hand, that's me," the conductor said gravely. "You've got to be equipped for all kind of emergencies."

The trainmaster studied Hi resentfully. Eddie didn't like that look. It portended an investigation later.

MEANWHILE, the section boss and some of his crew had arrived. Chad gave the orders, and they hooked onto a huge tree beyond the track and took a cautious hitch on the building. But the horses couldn't get traction in the mud, so the section gang went off to haul in crushed rock with a push-car.

Chad ignored Mr. Keeley when the latter intervened. The boy had pulled stumps and moved farm buildings and he knew the trick of getting leverage. When they had made a footing for the horses, he waved them all back.

"Sometimes these old buildings bust apart and throw things," he said. "Get 'way back in the clear."

Then he spoke quietly to his team. The horses snuggled into their collars, took a test pull for a feel of the load, and dug their iron toes into the crushed rock and pulled.

The old bunkhouse grunted as the horses bellied to the ground. Then it heeled over and slid down with a rush and exploded as it struck. Somebody coughed and a figure collapsed. It was the agent. He hadn't stood back far enough and a snapped brace had caught him across the chest. He was out. Three of the gandy dancers carried him to his quarters, while one went for a doctor.

Chad examined the new position of the structure and rearranged his lines. First one end and then the other he snaked across the track and clear of the main stem.

Eddie returned to the zulu car. Chad came back with his team and said everybody had gone into the station. The boomer was uneasy about Mr. Keeley. The T. M. had a questing look.

Then the station door opened and slammed, the door of the zulu was pushed back, and Hi was staring up at them again.

"That agent ain't come to yet," he announced. "Doc says there don't seem to be any broken bones, but he can't tell much else. The dispatcher done busted our runnin' orders when he thought we'd be tied up from now on, and we gotta pick up some ore cars before we move." He slanted an appealing look at the boomer.

Eddie reached for his raincoat. "Love is blind, sure enough, or you'd see Keeley is going to check you up. I'll get you going this time, but you'd better sing soft from now on."

Hi was still exultant when he hustled Eddie into the station and introduced him to Bull Keeley. "Picked him right out the air," he boasted, "and he's got enough telegraphin' in his system to get us goin'."

"You're pretty good," the official growled. "Too good to be true, stray operators and a circus."

Eddie slid into the chair at the telegraph table. He called DS and got an immediate answer. He reported the changed situation, got running orders and clearance, and then made quietly for the door.

Mr. Keeley stopped him. "How come you're floating around this station so late at night?"

Eddie studied the trainmaster. "It isn't late for a guy who's been out with a girl," he said, "or is it?"

"Been here long?" Keeley asked.

"Long enough." The boomer nodded and left, and, Forty-seven moved out of town.

It was just after a clearing dawn, with the mountains towering overhead and the sun edging through hurrying clouds, that they stopped at a station to do some switching. All were asleep in the zulu when the side door suddenly gaped wide. But it wasn't Hi Wheeler that now obtruded in the doorway. Trainmaster's stormy face checked the human and animal contents of the car.

"Quite a family movement," he remarked. "I considered this must be where Wheeler reached in for all his trick help. But I noticed the waybill calls for only two horses, a cow, and an attendant. The rest of you will have to unload."

"After all the help we've given you?" Eddie asked drowsily.

Chad peered down at the trainmaster and yawned. Barbecue got up and stretched. He tucked in his chin and rolled his eyes. Pomp looked at his master questioningly.

"Makes no difference," Mr. Keeley decided. "You've got no business on this train. Wheeler isn't going to pull this free ride stuff on me. I told him not to bring that kid along. Now you take her and the dog and goat and get the hell out of here."

Chad made a noise in his throat. Barbecue began to rock like a hobby-horse; then he bucked and charged at the trainmaster.

BULL KEELEY bumped his chin on the sill as he made a quick duck. Barbecue sailed over him.

At the next stop Hi Wheeler visited the emigrant car again and said:

"Keeler is sure gonna tack our hides to his barn door. I hate to think how Gladys will take the bad news.

If I was you, Eddie I'd unload right here. You can come in on a passenger, and I'll hold your suitcase."

"I don't run out that easy," Eddie replied.

Hi moved on to his duties. Carlotta woke and chattered cheerfully. Chad milked the cow. An hour later they pulled into the terminal. Bull Keeley brought Hi and two railroad dicks to the zulu car.

"All right," Keeley ordered. "Unload! You two fellows and the kid and the dog and the goat. These men have orders to shoot that animal if he makes a pass at me. Hurry up!"

The men waited.

"This boy," Eddie pointed out," is a shipper and is legally aboard. I'm not in this car with his consent, so you'd better keep off him. And you can't prosecute a little girl."

"The hell I can't!"

"You're liable to get yourself in a jam," the boomer warned.

"Fella," growled the T.M., "you heard me the first time. Unload!"

Carlotta climbed out of the car with one hand holding Eddie's, the other Pomp's fur. At last the sun was flooding the landscape with pure gold. The brass pounder sniffed the clean dry air and smiled. *My luck'll get better now,* he thought.

In the busy yard, switch engines paused and hooted while crews stared at the procession, led by Mr. Keeley, that moved along the siding toward the station. Carlotta followed Mr. Keeley. Behind her walked Pomp, Eddie Sand, and Barbecue and his owner. The goat required some restraint to prevent him from disputing leadership with the huge trainmaster. Hi and the two cops brought up the rear.

Passengers at the station were somewhat startled by the parade. Mr. Keeley told one of the special agents to keep Barbecue below until he found out from the Legal Department what was to be done with him. He then led the way upstairs to division headquarters. Barbecue resented being left behind and twisted his horns from the dick's grasp. He eyed the man with distrust, then clattered up the steps after the rest.

They turned in at a doorway marked "Superintendent." The chief clerk in the outer office watched them cynically but said nothing. Bull Keeley opened the door to the inner office, which he had been occupying in the Old Man's absence. He took one step inside and stopped.

A big man with gray hair and a pallid face sat at the desk, facing a thin man whose sharp eyes checked the details of the intruding party. Mr. Keeley was taken aback. For the moment he couldn't find his voice.

Carlotta ran to the big man at the desk. "Papa Dan!" she chortled. The

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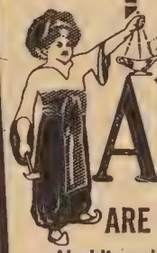

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man swung her up and held her close, and his tired face beamed.

"Carlotta," he said, "you dear little tramp!"

HI MUTTERED in Eddie's ear: "That's Welby, the division super. The other's Archer, the general manager. Somethin's sure gonna break loose here."

The boomer kept silent.

"Well, Keeley," said the G. M., "are you in charge of this array of men and beasts?"

"Yes, sir," said the trainmaster. "That kid and this man were bumming a ride on an emigrant car, and this boy was the attendant. The dog and goat were in the car, too, but not declared. Conductor Wheeler knew they were on this train without right, so I've fired him. I'm turning the rest over to the chief special agent."

The general manager uncrossed his legs. A misty expression filled his eyes. Mr. Welby's face hardened, but soon relaxed in tired lines. Barbecue rummaged in a paper basket.

Hi said brightly: "I'm right glad to see you up and goin,' Mr. Welby. I'd like to introduce my friend, who's an operator I worked with down on the SWP. This is Eddie Sand."

Mr. Welby looked up quickly. "You are the operator my friend Barabe gave a gold watch to for preventing a Mexican revolutionist from robbing the express company of a gold shipment," he said.

"I guess so," Eddie admitted.

Mr. Archer crossed his legs again. "Let's have details, Keeley," he suggested, and Bull began to relate. Eddie listened carefully, and when the trainmaster was through he spoke up mildly.

"Mr. Keeley didn't name all the incidents," he insisted. "He overlooked the assistance rendered by the contents of that car." The boomer stepped forward and met Mr. Archer's cold eye.

"The goat did get rough with him," Eddie went on, "but there was provocation. I'd like to tell our side," and he gave them facts.

The G. M.'s misty look returned and increased as the telling waxed. He reflected when the telegrapher had finished.

"It seems," he said, "that all the creatures in the car rendered service, except the cow. Was she merely in reserve?"

"No, sir," Eddie declared. "She fed Carlotta and the rest of us."

Welby's eyes glowed. "His statement sounds reasonable to me, because it's about what would happen after I've run this division for so long. Carlotta goes about on any train. No trainman would think of refusing her a ride. And I expect my conductors occasionally to carry railroaders temporarily out of service.

"Most of the men on this division have put their best effort into keeping traffic rolling and patrons happy. If there is any blame for what happened on Forty-seven last night it is due to me and my methods."

"I can see that," Mr. Archer agreed, and he sat awhile brooding. "Keeley," he said at last, "suppose you report to me in my office tomorrow at ten."

"Wheeler," he said, when Keeley had gone, "Mr. Welby will decide your case. He's back on the job."

"Thank you kindly," Hi replied, and then an arrogant whistle sounded at the upper end of the yard.

Hi jumped. "Is that Twelve?" he asked, and Mr. Welby nodded.

"Excuse me, please," Hi begged, and sprinted for the door.

Mr. Archer turned to Chad. "You have rendered this road considerable service," he smiled, "for which there is something coming to you. If you will please take your goat out of here before he destroys Mr. Welby's office, I'll see that you get it, and also better treatment for the rest of your trip."

"Aw, I've had a swell trip," Chad declared. "I didn't pay any mind to that man."

MR. ARCHER spoke to the superintendent. "I'm glad this happened, Dan. You know who Keeley is related to, and what pressure they have put on me to retire you and give him your place. But I see now that I couldn't be responsible for such an official."

"Thanks," said Dan Welby. His face twitched and he got up and moved to the window. Suddenly he beckoned to Eddie.

Twelve had come to a stand below them, and passengers were moving down the steps and milling about the platform. A woman waved from the bottom step of one of the coaches.

"Hi!" she called. "Here I am, Hi."

Eddie stared. She was a wisp of a girl, with blue-black hair under a little gray hat.

The long-legged trainman rushed through the crowd, snatched her from the step, held her aloft, and kissed her with conviction. And she kissed back.

Mr. Welby studied the roving brass pounder. "If you think you have gone far enough on this trip to wherever you were going, why don't you work for us and see what happens?"

Eddie looked at the bright sun on the platform and the clear blue sky. He glanced at the radiant pair.

"I'll have to stay for the wedding," he agreed, "and since I've finally caught up with the sun, I guess I'd better go to work." ●

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Steve Maguire's TRANSIT TOPICS

THE WORLD'S OLDEST trolleys still in regular passenger service may well be the two ex-steam wooden coaches running on the Quebec-St. Anne interurban line of the Canadian National, formerly part of the Quebec Railway, Light & Power Company.

Steve Maguire

These cars, numbered 401 and 405, were built for the line in 1890 by the Ottawa Car Company and have been jogging over the rails ever since. Several others of similar type are used as trailers on the same route but were never electrified.

You are gazing into the past when you look at these cars, with big steel pilots jutting out in front, each one seating 111 passengers, which is unusual. The company also operates five passenger cars, Nos. 451 through 455, built in 1930. Plans to move the interurban terminal to adjacent land have been shelved temporarily.

REMEMBER our story of the dramatic rescue of two-year-old Leila Smith by William Lang, a Lake Shore Electric motorman, back in 1932? Lang saw the tot playing too near his speeding interurban, No. 176. He swung out in front, with one foot hooked on the fender and the other on the car step, and grabbed Leila's wrist as the car was about to run over her.

An interesting follow-up comes from Max E. Wilcox, 429 West Ave., Elyria, Ohio. Max tells us that after Leila grew up she learned of the rescue, expressed her gratitude, and visited Mr. and Mrs. Lang occasionally. Last August she became the bride of Irvin Hoover. She invited the Langs to the ceremony but they couldn't go. So she took Irvin to meet the man who had saved her life. Later, they saw old 176 in use as a tool shed at a quarry.

Northern Ohio fans hailed the oc-

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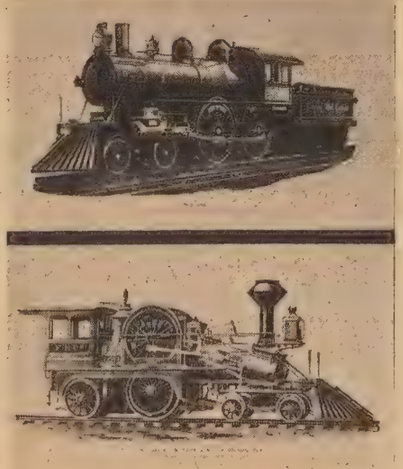

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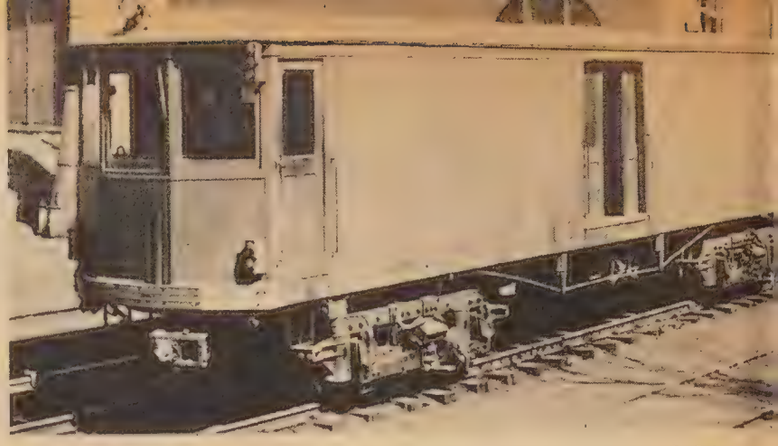
Lake Shore Electric car No. 176. (See bottom of page 61.)
Max E. Wilcox



PTC work car T-16 outside 69th Street shops, Philadelphia.
Sy Reich, 92 St. Marks Pl., New York City

casion by bringing their models of Lake Shore equipment to Bill Lang's home and talking over the days when the once-popular interurban cars burnished the rails between Cleveland and Toledo. Bill died a few weeks later.

FIRE destroyed Napa Valley car 53 which the Bay Area Electric Railroad Association had been storing at Fine, Calif., as a museum piece. Origin of the blaze is a mystery. A cigarette-smoking tramp may have broken into the car for shelter and accidentally set it afire. This loss emphasizes the care that is necessary to safeguard irreplaceable souvenirs of long ago.

Our information comes from the *International News Sheet*, a mimeographed bi-monthly published by the Williamette Valley Electric Railway Association, 2743 S.E. 38th Ave., Portland, Ore. No other periodical that we know of deals solely with trolley museums, operating or projected.

FREIGHT operation of his city's subway line is now dieselized, reports Bill Gordon, 811 Garson Ave., Rochester, N. Y., who says the old cars were locked up in the barn and placed on sale to the highest bidder.

A single New York Central diesel, No. 817, serves the subway, running to and from the route via the Central's interchange track. The old subway shop facilities are no longer needed.

At Kansas City, Mo., an ex-Ft. Dodge line butane electric locomotive, No. 501, has replaced the electric motors, according to Clayton Moseley, Box 372, K. C. He says the freight line has been leased for a short term to a private operator.

A PROMISE to end the operation of old wooden cars on the Chicago El, publicly demanded by local newspapers after a series of fatal accidents, is now fulfilled. The last of these rattletraps has been pulled off the Kenwood route, a shuttle line on the South Side.

Prior to that, such equipment had also served the Stockyards and Evanston branches, but the former gave up El service last fall and shortly afterward steel cars replaced wooden ones on the Evanston run.

Those ancient cars have gone to join the little, eight-wheeled steam engines that used to puff and clatter along the rails of the old Chicago elevated line before electrification.

The Wentworth line—southern half of the Clark-Wentworth route—is the last surface streetcar operation left in the Windy City and its days are num-

Philadelphia Transportation Co. Subway Cars

Compiled by Sy Reich

Class	Rd. No.	Type of Car	Year	Builder	Seats	Stands	Motors	HP	Length	Width	Height	Wt.	Notes
MARKET FRANKFORD DIVISION													
A-8	1-165	Market St.	1906-'11	Pr. St.	46	114	2 GE 66C	125	49'-7"	9'-0¼"	13'-0"	70,000	1
A-8	166-215	Market St.	1913	Brill	46	114	2 GE 222F	135	49'-7"	9'-0¼"	13'-0"	76,000	1
A-15	501-600	Frankford	1922	Brill	46	129	2 GE 259C	120	55'-0"	9'-0¼"	12'-1"	89,500	2
	T-1	5-ton crane	1906	Pr. St.					44'-11"	6'-10"	12'-3½"		1
	T-2	5-ton crane							55'-0"	8'-6"	12'-7"		1
	T-4	wreck car		PRT									3,1
	T-14	dump car		Diff.					41'-5½"	8'-2"	11'-0"		4,1
	T-16	rubbish grinder	1913	Brill					45'-8"	8'-7½"	12'-2¼"		5,1 6,1
BROAD STREET SUBWAY DIVISION													
A-29	1-150	Broad Sub.	1928	Brill	67	153	2 WH 581A1	210	67'-6"	10'-3½"	12'-4"	110,580	2
A-32	1001-1016	Bridge cars	1936	Pr. St.	67	153	4 WH 555A1	105	67'-6"	10'-3½"	12'-4"	113,800	7,8
A-32	1017-1026	Bridge cars	1936	Pr. St.	67	153	4 WH 555A1	105	67'-6"	10'-3½"	12'-4"	113,800	7
A-33	151-200	BSSE	1938	Pr. St.	71	149	2 GE 728A	210	67'-6"	10'-3½"	12'-4"	008'901	2
	T-18	rubbish	1908						56'-6½"	9'-11"	12'-9¼"		1,9
	CW-1	gondola							51'-8¾"	9'-5½"	12'-4"		2,10
	CW-2	5-ton crane		Diff.					65'-0"	9'-5"	12'-8"		2,11
		grinder	1929	PTC									1,12
		wreck car	1913	Brill					40'-6½"	8'-0½"	12'-6¼"		1,13

ROSTER accurate as of Jan. 1, 1958. Compiled from information supplied by PTC.

ABBREVIATIONS: BSSE—Broad St. Subway Extension cars; Pr. St.—Pressed Steel CarCo.; Brill—J. G. Brill; PRT—Phila. Rapid Transit Co.; Diff.—Differential Steel Car Co.; GE—General Electric; WH—Westinghouse. All passenger cars are AMUE-MUDC.

NOTES: (1) PTC owned; (2) City owned; (3) Boxcar trailer with sliding doors used for carrying jacks and tools; (4) Used for hauling dirt and ballast; (5) Boxcar with sliding doors, interior lined with asbestos boards up to carline; floor covered with 1/16" sheet steel; (6) Single-truck car with hinged doors built from old streetcar with two oscillating grinding units; (7) Owned by Delaware River Port Authority; (8) Dynamic-brake equipped; (9) Boxcar with sliding doors, interior lined with Transite boards up to carline, headlining covered with sheet steel, floor covered with 1/16" sheet steel; (10) Used as a hauling car; (11) Differential Electric locomotive crane; (12) Powered single-truck grinding car built from old trolley equipped with two oscillating grinding units; (13) Boxcar with sliding doors, interior lined with Transite boards to carline, floor covered with 1/16" sheet steel. Used for carrying jacks and tools.

bered. The Chicago Transit Authority is getting the final miles of service out of these relics of its fleet of PCC's, once close to the world's biggest.

SOME fans have a yen for sesquipedalian words. Take, for example, that pert little magazine known as *The Ferroequinologist* (lover of the iron horse). Transfer collectors call themselves *peridromophilists* (a hybrid word which means, roughly, friends of travel routes). And transit-token collectors describe themselves as *vecturists* (based on the obsolete word *vectura,* meaning a carriage or conveyance). Ten years ago they formed the American Vecturists Association, with *The Fare Box* as their official journal. Maybe we should rename this department *Electro-quinby-ensis* instead of just plain *Transit Topics.*

NEW ORLEANS has acquired a new look with the removal of outer tracks from the once four-tracked Canal Street. Those outer tracks weren't being used anyway, except for a one-block area where the St. Charles Street cars loop around. To serve the St. Charles cars a new crossover track has been installed.

Famous old Canal Street is now modernized. Its roadway is six feet wider on each side of the central strip, other changes have been made to expedite motor traffic, and soon a long line of palm trees will greet visitors.

IRELAND'S final horsecar tramway is no more. The abandonment of this picturesque, two-mile, double-deck ride at Fintonia last October is reported by J. H. Price, 15 Kingslynn Crescent, Upper Norwood, S.E. 19, London, England, who is a member of the Light Railway Transport League. He also tells us that city tram service in Liverpool, England, ended last September. The tram lines in Aberdeen, Scotland, are doomed to go this spring.

THE HORRORS of five years ago when 80 persons perished in a runaway crash on the La Venta trolley line in Mexico City are recalled by W. Parks Grant, 303 University Ave., Oxford, Miss., in the news that construction work on this line is causing a temporary suspension of rail service on the Artificos line, sole remnant of La Venta. Notices posted in streetcars state that when the job is finished a more efficient trolley service will be instituted.

Mr. Grant also reports the abandonment of service on the Rosa and Penon routes in the Mexican capital. He points out that the city's trolley track setup is complicated. For example, one track that is about to merge into another swings out and crosses it before merging on the opposite side of the turn. This is caused by narrowness of the streets that were built a long time ago for horse-and-wagon traffic.

SOUTH AMERICAN streetcars interested Allen H. Berner, Baldwin, N. Y., on a recent trip. At Rio de Janerio he found the Brazilian Traction Company operating a very large fleet of open trolleys, which run on nearly all main streets. Trolleys still run on thoroughfares that are one-way streets for other traffic. There are open cars.

The Carioca line operates small single-trucked open cars with trailers through a hilly district near mid-city. In Sao Paulo, gradual abandonment of the streetcar lines is in progress, due

Stephen D. Maguire

Never again will No. 2135 or any other trolley stop at the Willow Grove, Pa., terminal. PTC's last long suburban run was converted to buses in Oct., 1957.

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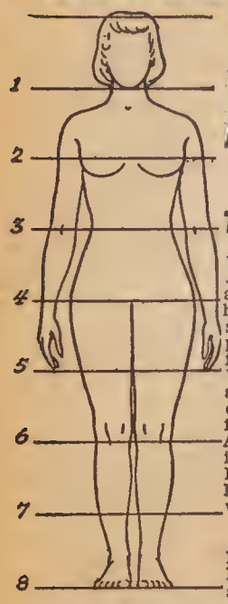

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Pennsy loco 612, BERA "farewell to steam" fantrip, at Elizabethtown, N. J.

in part to the fast rate at which the city is growing. The nine lines that are left use mostly varied types of modern equipment, including some center-door cars from New York's old Third Avenue route.

Buenos Aires has a huge city system of 45 car lines and five subway routes.

Also in B.A. you can find the General Urquiza Railway, the only interurban in Argentina. Most of its cars are ex-Pacific Electric.

The most interesting traction line that Allen Berner observed is at Arequipa, Peru. About 30 Birney cars operate there, along with a few ex-U. S. double-truck steel cars whose platforms have been cut back, due to narrow streets. You can see at least one Third Avenue Railway car there, with ends cut back and Birney fronts used. Doorways have been cut into the body's front windows on each side.

ARGENTINE trolley pix (including Birnies, ex-Pacific Electrics, and Brills), size 4½x3½ inches, may be obtained at seven for $1 from Arnold I. Reid, Defensa 665, Buenos Aires (R. 46), Argentina.

JACOB CHENEY, 191 Hartford Rd., Manchester, Conn., says the unidentified photo in our Dec. '57 issue, bottom of page 70, came from him.

A NEW YORK subway conductor, probably a new man who didn't know better, misinformed Barbara Kreimer as to the meaning of the blue lights in subways. They do not indicate emergency exits, as February *Information Booth* stated, but emergency alarm boxes and telephones, where employes can shut off third-rail power if necessary.

NUMBER 1001, pictured in Feb. issue, was *not* the first PCC built, according to Bill Warden of Waynesboro, Va., but No. 1000 was. Same issue: someone had Pittsburgh Rys. operating air-conditioned cars like the *Silver Sightseer* (Washington, D. C.), but Richard Clark of Pittsburgh says their air-distributing equipment is different. Technically, they're not air-conditioned.

Jim Farrell of Chicago finds a misprint in Dec. '57 issue. Kansas City Public Service abandoned its last 2, *not* 3, lines in June.

B.C. ELECTRIC is ending all passenger operations on their remaining electric line February 1 with the closing of its Marpole-Steveston run, reports Glen S. Morley, 750 Victoria Park Drive, North Vancouver, B.C., Canada. Buses take over. Freight operations continue over part of the line.

NEW PUBLICATIONS for juicefans include a 16-page account of the Chester & Derry, a New Hampshire electric line that operated from 1896 to 1928. Authored by historian O. R. Cummings, it is published by the NRHS, Connecticut Valley Chapter, in its *Transportation* series. This brochure includes photos, maps, roster, and timetables; is available at 50 cents a copy from Roger Borrup, Warehouse Point, Conn.

The same chapter has issued an 8-page illustrated write-up of its Warehouse Point trolley museum—25 cents a copy, from Mr. Borrup.

Ira Swett announces two new and different 20-page supplements to his *Lines of Pacific Electric* publication of two years ago, these dealing with the Northern and Eastern districts. Readers who have the original PE story will, of course, want the new supplements, which may be acquired at $1 each from Ira Swett, 1414 S. Westmoreland Ave., Los Angeles 6, Calif. ●

A FORGOTTEN LINE

by Erle C. Hanson

A PLEASANT bit of "remember when" revolves around the old Leona Heights Railroad. This was a trolley line dating back to 1888, when a real-estate project on the hills overlooking Oakland, Calif., brought in the steam-operated Alameda County Railroad to provide transportation for the people in that area.

Its route started at the Southern Pacific's Fruitvale station, two miles east of downtown Oakland, paralleled the SP main line for a half-mile, then darted toward Leona Heights through some three and a half miles of wild countryside.

The Alameda's first engine was the *J. G. Kellogg*, borrowed from the SP and listed as the second locomotive built on the West Coast. In October of that year the Alameda acquired a Rogers eight-wheeler, buying it second-hand from the Iowa Railroad, and returned the *J. G. Kellogg* to the Espee.

If there is a good photograph available of either of those two long-gone old girls the editor of *Railroad Magazine* would be glad to publish it.

Bogged down by mechanical and legal difficulties, the little Leona Heights road went through a brief period of reorganization. In 1890 a group of businessmen bought it and renamed it the California Railway. The same group built a handsome two-story hotel with wide verandas, which proved a popular tourist attraction. Freight from rock quarries and ore mines also swelled the volume of traffic.

At first the railroad ran only to Mills Seminary, the California equivalent of Vassar College. Later it was extended to the canyon below the hotel, where switchbacks connected the cars which hauled down the rock and ore. Here a car barn was built to house and repair equipment.

In 1896 the entire road was electrified. It now ran between the hotel and the nearby town of Alameda. Its steam coach, built by Carter Brothers, was converted to electricity—the first such transformation on the West Coast. In 1906 the road was taken over by the Oakland Traction Company, which operated the local streetcar lines, and in 1910 it was extended to downtown Oakland.

The hotel's prosperous career had ended in 1907 when a short circuit in the wiring set fire to the rambling wooden building. It was never rebuilt, and thereafter train runs terminated at the car barn.

The railroad had its only fatal accident on Memorial Day, 1910. Jammed with picnickers, car No. 251, coming from Oakland, and No. 267, inbound for the city, met head-on on Bellevue Curve.

One of the motormen was killed and his car, No. 251, skidded backward down the grade as passengers jumped for their lives. Scores were trapped in the wreckage of the other car. In all, four people died, 50 were injured.

On April 1, 1936, the last car left Leona Heights, ending 48 years of continuous service. The only piece of Leona equipment left in operation is Key System's lone car 1201 (No. 20 on the old LH), which runs on Trans-Bay train routes.

No. 251 of the 1910 wreck was renumbered 271 and now belongs to the Bay Area's Electric Railroad Association. ●

Car 455 of the old Leona Heights (Calif.) Railroad at the home terminal barn.
Eric C. Hanson, 952 36th St., Richmond, Calif.

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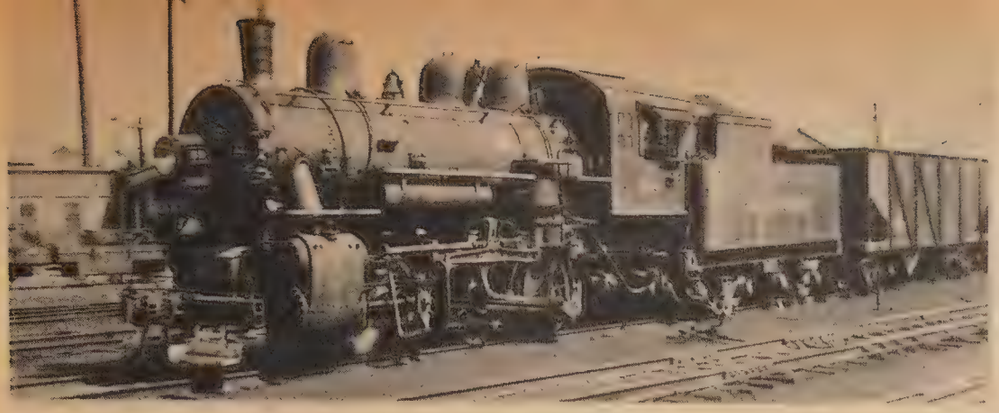
No. 746, Class S-2, of the New York, Chicago & St. Louis (Nickel Plate Road) crosses the viaduct at Painesville, Ohio.
Nickel Plate Road

Don Wood, 29 Mt. Haven Drive, Livingston, N. J.

Wheeling fast freight, NKP No. 777, Class S-2, thunders through Painesville toward Conneaut at about 80 miles per hour.

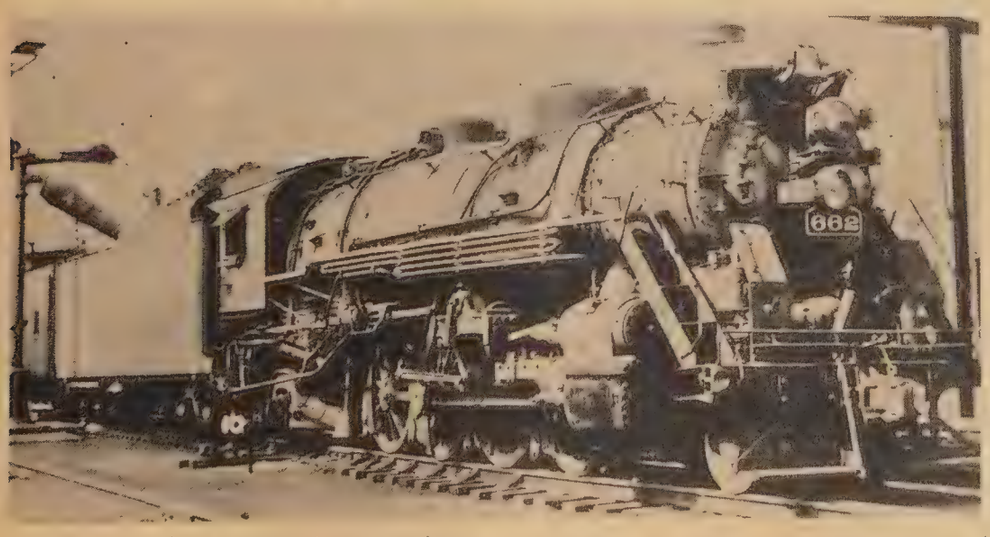


NKP No. 69, an 0-6-0 shown at Lima, Ohio, in 1948, has since been scrapped.

Locomotives of Nickel Plate Road

STEAM LOCOMOTIVES

Class	Road Numbers	Tr. Ef.	Wt.	Wt. on Dri.	Cyl.	BP	Builder	Date
0-6-0 (Six-Wheel Switcher) Type								
B-5	360	41,200	164,900	164,900	21x28	200	W&LE	1929
	384	41,200	168,000	168,000	21x28	200	Alco	1944
0-8-0 (Eight-Wheel Switcher) Type								
C-1	272	51,200	214,000	214,000	25x28	175	Alco	1918
C-1A	277,278,281 282,285,286, 288,290-292	52,500	219,200	219,200	25x28	180	W&LE	1928-'30
C-17	300-304	58,350	239,000	239,000	25x28	200	Lima	1934
U-3B	212,214,219	53,950	216,500	216,500	25x28	185	Lima	1924
U-3C	220,225,227, 229	53,950	221,000	221,000	25x28	185	Lima	1925
2-8-0 (Consolidation) Type								
G-9	911,915	37,500	209,150	184,900	22x28	185	Lima	1921-'22
2-8-2 (Mikado) Type								
H-5A	950,952,954, 956	49,750	291,750	224,950	24x32	200	Lima	1917
H-5B	959	49,900	291,750	224,950	25x32	185	Alco	1917
	960,964-967, 969	49,750	291,750	224,950	24x32	200	Alco	1917
H-6B	614	54,700	303,900	229,760	26x30	200	Lima	1920
H-6E	639,645,654	54,700	304,800	227,550	26x30	200	Lima	1923
H-6F	662,665	54,700	304,300	227,400	26x30	200	Lima	1924
2-8-4 (Berkshire) Type								
S	700,702,706-709,712	64,100	428,900	261,100	25x34	245	Alco	1934
S-1	715-720,724-739	64,100	429,500	261,800	25x34	245	Lima	1942-'43
S-2	740-769	64,100	440,800	264,300	25x34	245	Lima	1944
S-3	770-779	64,100	444,290	266,030	25x34	245	Lima	1949
S-4	801-803,805, 807	65,400	413,100	263,000	25x34	250	Alco	1937
S-4	804,808-810, 812,814,815, 817,820,821, 823-832	64,100	413,100	263,000	25x34	245	Alco	1937-'42
4-6-4 (Hudson) Type								
L-1A	173	42,000	318,400	175,800	25x26	225	Alco	1927
L-1B	174,175	40,150	315,900	176,000	25x26	215	Lima	1929



NKP No. 662, a 2-8-2 type, Class H-6F, is being serviced at Cleveland, Ohio.
Sy Reich, 92 St. Marks Place, New York City

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Nickel Plate Road

No. 495, Class ERS-17D, rounding curve at Spencer, Ohio.

Nickel Plate Road

Road switcher No. 322, Class BRS-16B, at Wellington, Ohio.

The Nickel Plate Road has ten zebra-striped diesels in its Class ERS-15B, of which this one is No. 422.

Nickel Plate Road

ONE-MAN STEAM ROAD

A FEW DAYS after the Pennsy was fully dieselized, William Willock, a 49-year-old retired businessman, began operating a steam-powered "train" over 2,500 feet of two-foot-gage track on his estate at Muttontown, Long Island, N. Y., near Glen Cove.

The train consists of a 15-ton locomotive built at Davenport, Iowa, in 1912 and rebuilt in 1948. She had been used at a mine in Burke, Idaho, and was shipped East on a railroad flatcar and a trailer truck. You can hear her whistle scream and her bronze bell reverberate over the low hills as she crosses a viaduct 84 feet long and chugs into the woods.

For at least 15 years Mr. Willock has been gathering rare steam-driven equipment of one kind or another and restoring it to working order at his home. He began with a Porter engine, vintage of 1902, but sold it to an amusement park and bought the Davenport. He also has a gasoline-driven, three-ton, work locomotive, a "roundhouse," and a passenger station.

It takes him two hours to build up the 170 pounds of steam pressure needed to run the Davenport, but once she gets going, Mr. Willock is as happy as a kid robbing an orchard. He also has an Iriquois steamroller, a Baker threshing-machine engine, and other steam relics, but his main interest is railroading. He plans to extend his track to a total length of three-quarters of a mile and to build a turntable at each end of the line. ●

NEW RAILWAY STAMP

MEXICO has just issued a commemorative airmail stamp to mark the 50th anniversary of the death of Jesus Garcia, the locomotive engineer who saved the town of Nacozari by seizing the throttle of his locomotive in Nacozari's railroad yard, coupling onto two burning carloads of dynamite, and rushing them away fast enough and far enough to prevent a terrific explosion within the city. Garcia paid with his life for his heroic act. He was Mexico's greatest railroad hero.

The suggestion for the commemorative stamp was submitted to the Mexican Government by C. J. Keenan, of Portland, Ore., director of the Casey Jones Railroad Unit. Mr. Keenan is an ex-rail, an ardent railfan, and a philatelist. ●

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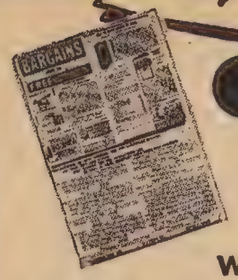

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- CIGARETTEHOLDERS, 1c
- NEW Phono records, 78 & 45 r.p.m. 7c each!
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- New 20" T.V. Pic. Tubes, $21.95 each!
- Famous brand $18.75 perfume $1. each!
- 49c Xmas window decorations, 10c per set!
- $1-$3 Hard cover books, 20c
- $200.00 Surplus Typewriters, $23.00 each!
- 50c Everyday greeting cards, 7c per box!
- $1.95 Men's Silk Ties, 12½c
- 89c Under arm deodorant, 2c jar!
- $1. Automatic card shufflers, 9c each!
- NEW HAIRNETS, ½c each!
- $15.00 Electric Percolators, $5. each!
- $5.50 Lucite Hairbrushes, 65c each!
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- Calendar Wrist Watches, $5. each!
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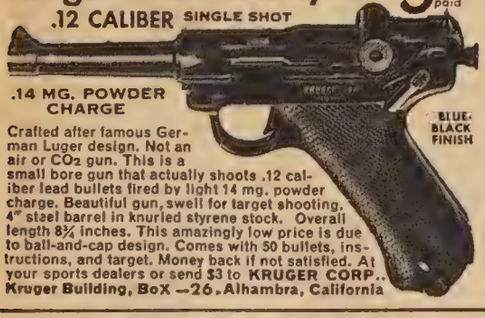

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DIESEL-ELECTRIC LOCOMOTIVES

Class	Road Nos.	HP	Builder	Builder's Model	Wheel Arngt.	Tr. Ef.	Wt.	Built	Equip.
AS-6A	85	660	Alco GE	S-1	B-B	49,600	198,300	1950	
AS-10A	1-6	1000	Alco-GE	S-2	B-B	57,500	230,000	1942	
AS-10B	25-43	1000	Alco-GE	S-2	B-B	57,500	230,000	1947	
AS-10C	46-58	1000	Alco-GE	S-4	B-B	57,600	230,400	1951	
AS-10D	65-73	1000	Alco-GE	S-4	B-B	57,500	230,000	1952	
AS-10E	74-77	1000	Alco-GE	S-4	B-B	57,700	230,700	1953	
ASM-10A	44-45	1000	Alco-GE	S-2	B-B	57,800	231,200	1950	
ASM-10B	59-60	1000	Alco-GE	S-4	B-B	57,800	231,200	1951	
ASM-10C	61	1000	Alco-GE	S-4	B-B	57,700	230,800	1952	
ASM-10D	78-83	1000	Alco-GE	S-4	B-B	57,800	231,100	1953	
ARS-16A	535-557	1600	Alco	RS-3	B-B	62,100	248,400	1954	
ARS-18A	558-562	1800	Alco Pr.	RS-11	B-B	61,850	247,400	1956	
ARX-18A	325-333	1800	Alco Pr.	RSD-12	AIA-AIA	92,540	370,160	1957	
AP-20A	180-190	2000	Alco-GE	none	B-B	51,400	308,400	1947-'48	
BS-10A	100-101	1000	BW	DS 4-4-1000	B-B	61,000	243,800	1947	
BRS-16A	320-321	1600	BLHW	AS-16	B-B	62,250	249,000	1953	
BRS-16B	322-323	1600	BLHW	AS-16	B-B	64,750	259,000	1954	
ES-6A	105-106	600	GM-EMD	SW-1	B-B	49,300	197,000	1951	
ES-8A	107-114	800	GM-EMD	SW-8	B-B	57,600	230,500	1952	
ES-10A	95-98	1000	GM-EMD	NW-2	B-B	62,100	248,540	1940-'41	
ES-10B	7-10	1000	GM-EMD	NW-2	B-B	61,900	247,640	1942	
ES-10C	11-22 ex. 15,16	1000	GM-EMD	NW-2	B-B	61,900 62,600	247,640 250,400	1947-'48	DTC,R
ES-12A	230-232	1200	GM-EMD	SW-7	B-B	61,700	246,800	1950	
ES-12B	233-237	1200	GM-EMD	SW-9	B-B	61,700	246,800	1951	
ES-12C	238-244	1200	GM-EMD	SW-9	B-B	61,700	246,800	1952	
ERS-15A	400-412	1500	GM-EMD	GP-7	B-B	59,100	236,400	1951	
ERS-15B	413-422	1500	GM-EMD	GP-7	B-B	59,100	236,400	1953	
ERS-15C	423-447	1500	GM-EMD	GP-7	B-B	59,100	236,400	1953	
ERS-17A	448-476	1750	GM-EMD	GP-9	B-B	61,200	244,800	1955	
ERS-17B	477-479	1750	GM-EMD	GP-9	B-B	63,100	252,400	1955	S
ERS-17C	480-483 484-485	1750	GM-EMD	GP-9	B-B	63,000 63,350	252,000 253,400	1956	S DTC,S
ERS-17D	486-509	1750	GM-EMD	GP-9	B-B	61,350	245,000	1956	
ERX-17A	340-359	1750	GM-EMD	SD-9	C-C	92,000	368,000	1957	
FS-10A	125-133	1000	FM	ALT 100.3a	B-B	61,700	246,940	1949	
FS-12A	134-138	1200	FM	H-12-44	B-B	62,000	248,000	1953	
FS-12B	139-145	1200	FM	H-12-44	B-B	61,700	246,700	1957	
GS-4A	90	380	GE	44 ton	B-B	22,000	88,000	1949	
LS-10A	305-308	1000	LH	none	B-B	59,600	238,260	1949	
LS-12A	309-312	1200	LH	none	B-B	62,000	248,000	1950	

BUILDERS' ABBREVIATIONS: W&LE, Wheeling & Lake Erie RR.; Alco, American Locomotive Co.; Lima, Lima Locomotive Works; GE, General Electric Co.; Alco Pr., Alco Products; BW, Baldwin-Westinghouse; BLHW, Baldwin-Lima-Hamilton-Westinghouse; GM-EMD, Electro-Motive Div., General Motors Corp.; FM, Fairbanks Morse; LH, Lima-Hamilton.

Diesel equipment abbreviations: DTC, dual train control; R, radio; S, steam heat generator. All steam engines painted black with yellow lettering. All diesels (except AP-20A) painted black with yellow lettering and striping. AP-20A painted electric blue and white. Roster compiled Oct. 16, 1957, from data supplied by Chief Mechanical Officer of New York, Chicago & St. Louis Railroad.

Compiled by Sy Reich

Nickel Plate Road

The 11 diesels in this class, AP-20A, are painted electric blue and white.

MAIL CAR

(Continued from page 10)

SCENE: a Southern Railway office on a warm July day. A pretty stenog was typing letters and fussing about the weather. In walked James K. Moss, the new chief clerk, saw the stenog for the first time, and fell in love with her. Just like that! They married, of course, and had two daughters, Carolyn and Laura.

Carolyn Moss

"Mother worked 17 years for the Southern," Carolyn writes. "When the 205-mile Atlantic & Danville assumed separate operation Daddy left the Southern and served as a trainmaster on the A&D until his recent death. Laura and I railroaded as A&D relief agents for the vacation period last summer. Neither of us knew Morse telegraphy but I managed to learn a little of it when work was slack."

Carolyn Moss, who lives at 401 Windsor Ave., Lawrenceville, Va., is a student at Westminster College with a long list of extra-curricular activities. At times she has ridden in cabooses and locomotive cabs. ●

A LIST of American cities with 50,000 or more population that have no railroad passenger service includes such places as Cranston and Woonsocket, R. I.; Newton, Mass.; Lakewood, O.; Cicero, Ill.; Gadsden, Ala., and Alameda, Santa Monica, and South Gate, Calif. If the roads were permitted to ditch their unprofitable passenger runs they would add many great cities to that list.

The news that the Baltimore & Ohio has asked for permission to abandon its once-famous New York-Baltimore passenger business came as a bit of a shock. We knew, of course, that the Pennsylvania has long enjoyed the cream of traffic between the world's biggest city and the nation's capital. Even so, the Pennsy's passenger figures also are in the red. That is the main reason behind the official announcement not long ago that the Pennsy and the New York Central were seriously considering the possibilities of a merger.

There is not likely to be such a merger—at least, not soon—because of the Sherman Anti-Trust Law, but the announcement dramatizes the plight of our railroads. The state public utilities commissions *may* decide to grant the B&O's request. And if they do, you can bet that other roads throughout the country will quickly file similar applications.

Any way you look at it, the iron horse is carrying a heavier load than passengers and freight. It is toting the burden of Government-subsidized competition. All of us, including the railroads, are paying taxes that help to finance transportation by air, by waterways, and by super-highways. Is it any wonder that rail passenger traffic is dwindling?

With all the publicity being given to national defense, it is high time that President Eisenhower and Congress woke up to the value of our rail network to the peacetime economy and in the event of another war.

We as a nation should not weaken our railroads. We must stop subsidizing rival forms of conveyance. The railroads should be permitted to compete freely in an open transportation market. One urgent need is to abolish the unfair Federal tax of 10 percent on passenger fares that was imposed during World War II to cut civilian traffic. The 3 percent tax on freight also is unfair.

The list of communities deprived of railroad passenger service is growing. How many more miles of trackage have to be abandoned, how many more passenger trains pulled off, before we do something about it? ●

THREE-WAY SWITCHES, in addition to those mentioned by R. Bruce (Oct. '57), may be seen at the White Pass & Yukon shops at Skagway, Alaska, reports John D. Knowles, 194 Grenadier Rd., Toronto, Canada. Also at the Cumberland Railway & Coal Company's engine-shed in Springhill, Nova Scotia, and at the engine-shed of the Millertown Railway, a 38-mile narrow-gage private carrier in the Red Indian Lake area of Newfoundland. The Cumberland has many of them.

The Toronto Transportation Commission's Dundas trailer yard, closed in 1938, was equipped mainly with street railway type three-way switches of girder rail with the usual "mate" on one side with no moving parts. The switches had two tongues which were side by side, except when the switch was set for the center track. ●

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NO OVERHEAD, NO EXPENSIVE EQUIPMENT. Start in your basement, garage, attic, service porch, or even on a card table in your bedroom. With an hour's practice you can apply a few pennies worth of **FLOK-KRAFT MICRO-FLUFF** to a yard or two of butcher paper and make it look like $15-a-yard velvet for window displays in the finest jewelry, gift, or department stores, etc. Takes only a few minutes and practically no effort.

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Big-profit orders come from neighbors, gift shops, stores of all kinds. Every household has one or more items that can be saved from discard by a **FLOK-KRAFT** job. Decorate store display cases and windows (jewelers love this) and also supply them with fast-selling **FLOK-KRAFTED** gift items and other merchandise. Manufacturers are prospects for contracts to apply **FLOK-KRAFT** to furniture, instrument cases, luggage, and hundreds of other products. Every neighborhood needs a **FLOK-KRAFTER. HELP US FILL HUGE DEMAND.**

Since succeeding beyond my wildest dreams in my own **FLOK-KRAFT** business, I have concentrated on helping ambitious men get started in the same way to build toward a successful future, free of time clocks and nagging bosses. My plan is designed to help you start at home in spare time, and build gradually toward a full-time business with employees working for you. And you can start **RIGHT NOW. DON'T SEND ME ANY MONEY,** just your name and address on a postcard, and I'll rush you a **FREE SAMPLE OF FLOK-KRAFT MICRO-FLUFF and full FREE details.** I'll also arrange to send you the **complete FLOK-KRAFT MICRO-FLUFF** outfit **to try out right in your own home, before** you agree to buy anything at all. The outfit includes detailed instructions with hundreds of show-how photographs and drawings that make everything simple, right from the start. Also included is our specially designed, high-velocity Applicator and a generous supply of **FLOK-KRAFT MICRO-FLUFF**—everything you need to get going right away. You owe it to yourself to investigate. Rush me your name and address today by Airmail, and I'll show you how to start making money at **once!**

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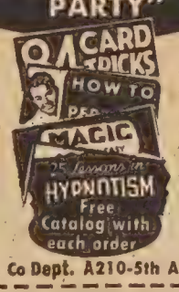

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END OF AN ERA and the end of Emporia's oldest business, according to Harry Fryberger, 331 Market St., Emporia, Kan., was the recent abandonment of the M-K-T's Neosho Division. No more will the familiar tri-weekly freight run on what was originally called the Union Pacific southern branch (no relation to the present UP). The first passenger run into Emporia, an excursion train pulled by a 4-4-0 woodburner named *Grant*, steamed in from Junction City on Dec. 21, 1869. The Katy's last passenger run through Emporia ended May 31, 1952. Previous to that, ticket sales on the line had dropped to as low as 80 cents per day. ●

ADVERTISING MEN tell this one about William Wrigley, the chewing-gum king. Wrigley was riding the *Broadway Limited* in the observation lounge when someone inquired why he spent so much money advertising his gum that was already widely known.

"How fast are we traveling?" he asked.

"About eighty miles an hour."

"That's fast enough," said Wrigley. "Why doesn't the Pennsy remove our locomotive and let the *Broadway* complete the run on its own momentum?" ●

LONG ISLAND RAIL ROAD is America's fastest means of getting from one point to another in the commuter rush-hour period—almost twice as fast as the national average—*Fortune* magazine reveals after a survey of 25 leading cities. The survey for the $1-a-copy monthly was supervised by its transportation expert, Gilbert Burck, a former associate editor of *Railroad Magazine*.

Fortune reporters rode commuter trains, subways, buses, streetcars, and automobiles in such widely scattered cities as New York, San Francisco, Buffalo, and New Orleans to see how far they could get in 30 minutes during the late-afternoon commuter exodus.

But the survey was too fragmentary to mean very much. It failed to include such important commuter railroads as the New York Central or New Haven out of New York City, the Pennsy or Philadelphia & Western out of Philadelphia.

The magazine itemizes the results of its check-up in a chart that "shows the distance a motorist can travel in 30 minutes, starting from the busiest corner in town and using the busiest outbound route, as compared with the distance an outbound transit rider can travel in the same time on the city's most heavily used transit line or commuter railroad."

Fortune continues: "Except in four cities—Cleveland, San Francisco, Houston, and Dallas—all the distances covered in 30 minutes (by car, that is) fell in a surprisingly narrow range between 8 and 12 miles, or the equivalent of 16 to 24 mph. . . . As against the motorist's average of 10 miles in 30 minutes, the homebound bus, subway, or streetcar rider averages only 6.5 miles. . . .

"The much-maligned Long Island Rail Road is actually the fastest thing on the chart—18 miles in 30 minutes. The slowest rides: by a bus in San Antonio and a street-car in Pittsburgh."

The 18-miles-in-30-minutes was from Penn Station, New York, to Valley Stream—the Long Island's busiest rush-hour line. ●

THEY MET in a railroad station, Stephen Juneau and Miss Velma McElroy. He was a young telegrapher who had learned Morse in his home town of Echo, La., on the Louisiana Railway & Navigation Co. (now part of the Kansas City Southern) and she was visiting her sister Alta, a clerk in the same depot. A casual introduction ripened into love. Wedding bells rang out for Stephen and Velma. The girl had often envied her sister's pass privileges, and now, as the wife of a brass pounder, she, too, could ride the rails without paying fare. Today Stephen is a Missouri Pacific assistant agent. They live at 1915 Huntoon St., Topeka, Kan., with their daughter Janet.

Janet Juneau

"At one time Aunt Alta cashiered for the Texas & Pacific in the oil boom town of Eastland, Texas," Janet writes. "She was exposed to danger on her daily trips with the money pouch from the station to the bank.

"The pouch holding many thousands of dollars had draw-strings that she wrapped several times around her wrist in such a way that, if accosted, she could sit on the bag and blow an

alarm whistle. The bank teller, Ben Reinking, was alerted when to expect her, which was part of the protective system. Ben admired Alta's courage and personal charm so much that eventually he married her. Thus two weddings in my family resulted directly from railroad station work."

Because of her mother's belief in the educational value of travel and her father's passes, Janet has journeyed by rail through 41 states and Canada. "I am amazed sometimes," she says, "to hear adults admit they have never ridden a train."

Janet is a freshman at the University of Kansas in Lawrence, her tuition being paid by a scholarship in journalism. The girl has secrets she isn't telling. For instance, about certain engine-cab rides and a mysterious caboose party. ●

INFORMATION on railroading in Civil War time, especially details about engines and rolling stock, is wanted by W. F. Norton, 2230 Broadway, Parsons, Kan., who is a modeler of period stuff in HO gage.

Says he: "It is hard for me to see why you are having trouble marketing your fine magazine. The last few issues have been an almost incredible improvement over those of years ago. They have everything for the railfan, past and present. Barbara is doing a splendid job with the Information Booth." ●

PERHAPS the world's most remarkable narrow-gauge electric railway is being built along a tunnel hacked out of the Greenland icecap, according to H. F. Thomas, retired New Haven towerman, 194 Water St., Stonington, Conn. Latest available reports have the tunnel (and railway) reaching a distance of 1,000 feet. Above, the ice is 200 feet thick. The tunnel is lined with chambers serving as laboratories.

"I do not know what its total length may finally be," Mr. Thomas writes, "but the work is progressing fast with new ice-cutting machinery. This is purely an experimental project to furnish the U. S. Army Engineers information on the history of the icecap, ice stresses, and so on."

In this tunnel, the temperature never varies from 14 degrees Fahrenheit, summer or winter, so it is an ideal refrigerator. It is a place of everlasting calm, for the ice there has been formed of compacted snowstorms of thousands

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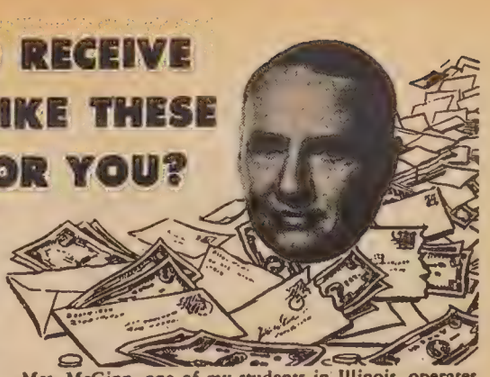

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To most people, importing smacks of mystery, romance — and "costly" things for collectors. Actually, any capable and ambitious man or woman should learn import-export quickly. And, there are thousands of beautifully made imports obtainable at trifling cost abroad to sell in the U.S. by mail order. There are also great opportunities in exporting U.S. products.

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I have proven this plan with 103 imports — and the opportunities for the sale by mail of thousands more are breathtaking in their possibilities. Hunting knives and binoculars from Germany, silverware from Sheffield, England — hand-carved art objects from Africa — all costing less than $1 abroad have values up to $5 or more here and are big sellers by mail order.

Monthly bulletins sent free to those who follow my plan show suppliers of new and desirable imports.

As I write this, I am receiving as many as 1,000 cash orders a day for imported clocks — all by mail order. They cost me only 63¢ and I sell them far below the U.S. market — a terrific bargain and a wonderful seller. And, I don't stock them as they are shipped direct to the buyers from abroad, *after I receive the cash.*

So you see, it is even possible to conduct a business of this kind without investing in merchandise.

Mrs. McGinn, one of my students in Illinois, operates a gift shop and sells Arabian perfume by mail order. F. Basler, N. J., sells Aztec bird feather pictures from Mexico to stores and by mail order.

You might ask, "Why do you let others in on your plan? Why don't you keep it all for yourself?" The answer is that items for import are countless. No one person could possibly handle even a small proportion of them. There's plenty of business in import-export for you and me and many others.

If you are sincere and really open-minded to a new and different opportunity — one which may change your whole idea of the kind of money you can make in your own full or part time business — write today for full details. Air mail reaches me overnight.

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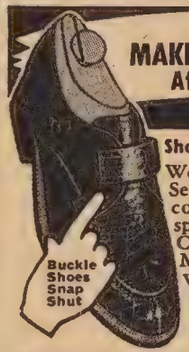

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of centuries. Various levels are like embalmed years. Whatever fell with the snow is preserved, so we have there a story of conditions that existed at different eras, through dead micro-organisms. The new railway will help to bring these facts to light. ●

OVERSEAS. Trying every trick to attract revenue, British Railways are experimenting with motor-scooter excursions from London to Shrewsbury (300 miles round trip), scooters being taken aboard the trains and 12 hours being allowed for motor-scootering in the Welsh hills, reports Joseph Fox, BM/Exn 3, London, W.C.1, England.

North America has no train waitresses except on a few New Haven commuter runs, some Chesapeake & Ohio streamliners, and the Ontario Northland's cafeteria cars, not to mention the Bangor & Aroostook's female dining-car superintendent, but the practice is quite different on Scandinavian railways.

"In Finland the dining-car staffs are all female," writes J. H. Price, 15 Kingslynn Crescent, Upper Norwood, London S.E. 19, England, "while in Norway and Sweden you find women employed in railway car kitchens and behind cashier desks and buffet-car counters but not as train waitresses."

"Bells were attached to four British Railways locomotives not one, as your December issue stated," writes P. Hayes, 138002 LAC, RCAF, Clinton, Ont., Canada. "These are No. 6000, the *King George V*, 4-6-0, King Class, ex-Great Western Ry.; No. 46220, the *Coronation*, 4-6-2, Coronation Class, ex-LMS; No. 46100, the *Royal Scot*, 4-6-0, Royal Scot Class, ex-LMS, and No. 60010, the *Dominion of Canada*, A4 Class, ex-LNER.

"You told about the 6000. No. 46100 was presented with a bell when she went to the Chicago World's Fair in 1933, but was rebuilt a few years ago and I doubt if she retained it. No. 46200 was given a bell when she traveled through Canada in 1937, but no longer carries one. No. 60010 received a bell from Canada's railway administration and still has it." ●

POSSIBILITIES of a merger of the Missouri Pacific and Texas & Pacific are being studied by officers of both roads. Says MP's President Russell L. Dearmont, "We are primarily interested in what savings can be made in operation and accounting, and the effects of a merger on traffic." Such a merger, if decided upon, would be subject to approval by stockholders of both roads and the ICC. The resulting company would be the third largest American railroad in mileage and would rank eighth on the basis of revenue. ●

CORRECTION. Our oldest-known subscriber, Albert M. Hennel, age 97, of 5616 Homeside Ave., Los Angeles, Calif., is a retired locomotive engineer, *not* telegrapher. Al began railroading as a callboy on the old St. Louis, Vandalia & Terre Haute (now PRR) at age 16.

"He called my father, 'Dutch Andy,' for extra freight runs in 1876," writes "Carload Andy" Ospring, 1322 N. Ontario St., Burbank, Calif., who often visits the old man. "Al went firing in 1880 and became a freight engineer in '82. I fired some passenger runs for him in 1905 (the year *Railroad Magazine* was founded) and 1907. He retired at about age 70."

Other corrections in Feb. issue: America's worst train wreck occurred on the NC&StL, *not* NYC&StL. Standard gage is, of course, 4 (not 5) feet, 8½ inches. ●

Next Issue — June (out around April 2)

COLORADO NARROW GAUGE: THE OTTO MEARS LINES — advance chapter from a forthcoming new book by Lucius Beebe and Charles Clegg. Illustrations include photographs and a beautiful cover painting in full colors by Howard Fogg.

DECORATED HOGS — Bill Knapke recaptures the romantic days when steam engines wore flags, bunting, garlands, or black crepe for picnics, special runs, funerals. Well illustrated.

ROSTERS: Burlington locomotives (mostly diesel, some steam) and equipment of the North Jersey Electric Lines.

Plus other articles, plenty of good photos, your favorite departments, and short hauls. (Coming in near future: motive power rosters of such roads as SP, L&N, Southern, ACL, and Belt Railroad of Chicago.)

Railroad Hobby Club

by Sy Reich

MOST of our readers are steam fans. That is understandable. The steam locomotive put the canal boat and stagecoach out of business, opened up the Old West, helped to save the Union, and scored magnificent speed records that no diesel has ever touched. It made America a great nation. It also made Canada a great nation.

Sy Reich

Nothing can match the nostalgic appeal of a steam whistle wailing in the night, or a billowing squirrel-plume of smoke climbing to the stars, or the thunderous exhaust of a Mallet walking up a mountain grade with a long string of loaded freight tied to her tail.

These things will never die. They are etched indelibly into history and legend. They are preserved in millions of photographs, endless books, movies, and, of course, *Railroad Magazine*. And don't forget the long-play records such as O. Winston Link's *Sounds of Steam Railroading* and the new Cabot release, *Songs of the Railroad.*

A few iron horses are being preserved in museums, others in city parks. Some of the latter are not likely to last long. For example, Frank Burris of Redlands, Calif., reports vandals are gradually wrecking the locomotive that the Santa Fe gave to the City of Kingman, Ariz., because the local park board made no provision for protecting her.

The steam locomotive itself is fading into the sunset, but the railroad goes on.

Change is the law of life. Everything changes. And so, while *Railroad Magazine* will continue to feature the steamer in all its glory, we cannot live entirely in the past. "New occasions teach new duties," said a famous poet. If we are to keep abreast of the times we must find more space in *Railroad Magazine* for the diesel-electric locomotive and the modern improvements in railroad operation it has made possible.

The diesel is doing a mighty efficient job. Five hundred railroads can't be wrong. Those 500 must have had good reasons for retiring steam in favor of diesel power. Diesels maintain higher overall speed schedules than steam ever did. Their standardized parts cut sharply the cost of maintenance and repair.

We invite comments. Would *you* welcome an occasional diesel feature? What do you want to know about diesel locomotives? Which phase of diesel operation interests you most?

A magazine can survive only if it serves its public. That is why we ask these questions. ●

GOOD-BYE, STEAM!

DIESEL-ELECTRICS have now completely replaced steam in Pennsy passenger and freight service along the North Jersey Coast. "Thus ends steam railroading in the New York City area," says Park Roeper, the system's new Superintendent of Transportation.

(Not quite, Mr. Roeper! From our 20th floor office in the big city we can still see puffs of smoke emanating from six steam-powered switchers that the Brooklyn Eastern Terminal Railroad operates daily on the East River waterfront.)

All trains in Pennsy's Northern Region also are powered by diesels, 275 of which took over chores that once required about 800 steamers. The arrival of new diesels, the end of the Great Lakes season, and the slightly downward trend in business brought dieselization months ahead of schedule. The last regularly scheduled steam operation in the region was between Renovo and Phillipston, Pa., on December 2.

PRR is still holding some steam engines and facilities in reserve for emergency. Barring the unexpected, the iron horse has chugged its last into Shamokin, Northumberland, Phillipston, and even Renovo, Pa., which steam power virtually built. South Amboy, N. J.—where Bud Rothaar and Gene Gentsch created our February photo-story, "Servicing a K-4s"—is now a ghost town where steam is concerned.

The Pennsylvania-Reading Seashore Lines, including the Camden engine-house, no longer has any *active* steam power, reports Alexander La Presto, 128 Race St., Elizabeth, N. J.

Thus the Pennsy has finally and completely disowned the steam locomotive that it did more than any other railroad to help develop. ●

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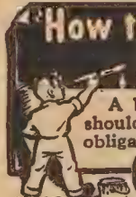

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FLAGSTOPS

TO COMMEMORATE the passing of steam power, Visual Discoveries, Inc., 4 W. 40th St., New York City, is issuing a de luxe album, "Eight American Locomotives, 1848-'98," consisting of beautiful prints on antique cover stock, 10 by 14 inches, suitable for framing. Each print shows a type of steam engine that made history. The set sells at $4.95 postpaid. We have never seen locomotive pictures with greater clarity of detail.

HEADQUARTERS of Railway & Locomotive Historical Society is still the Baker Library, Harvard Business School, Boston, Mass., where its collection of photos, timetables, etc., is housed in Room 103, says Charles E. Fisher, the Society's president. John W. Merrill retired as curator of R&LHS, to be succeeded by Loring F. Wilcox, and became curator-emeritus. The Society moved its museum to Edaville RR. Museum at South Carver Mass.

GRANVILLE THOMAS, SR., collector of steam pix and old friend of this magazine, died at Millville, N. J. He had been shooting locos and trains since 1902.

MARCH 29-30—Can. RR. Hist. Asso.: Saturday, Montreal trolley trip or, if you like, visit local rr. spots to snap steam locos, either trip $2; Sunday, Can. Nat. tour (main, branch, frt.—only lines) to nearby points, photo stops, 9½ hrs., $6. Write CRHA pass. agt., Box 22, Sta. B, Montreal.

FEB. 22 — Annual SP narrow-gage trip to Owen's Valley with steam engine No. 9, sponsored by C-NRHS. Contact Arthur Lloyd, 974 Pleasant Hill Rd., Redwood City, Calif.

MARCH 8-9 — Steam, diesel, elec. power used on special train, San Jose to Chico and back via WP and SN. Overnight in Chico. Write Central Coast Ry. Club, Box 783, San Jose, Calif.

MARCH 15—Tentative date, annual banquet Pac. Coast Chap. R&LHS and C-NRHS on special train Oakland to Carbona and back. Write Arthur Lloyd.

MAY 30 to June 6—Week-long steam trip on several Western roads, $275 up. Details from Arthur Lloyd.

NOVEL B&O trips, *Maple Sugar Specials*, March 9 and 16, sponsored by Kent's Train Treks, a railfan group, from Pittsburgh to West Salisbury, Pa., for sugar-camp tour and free, old-fashioned, "all-you-can-eat" dinner. Reserved-seat coaches, snack car. Fare, $7; children under 5, $1.75; 5 to 11, $4.50. Ticket deadline Feb. 28. For info. and tickets contact J. Edward Wally, 43 Grant Ave., Etna, Pittsburgh 23, Pa. (Last year's 2 *Maple Sugar* trips had total of 1400 passengers.)

MEMORIAL DAY TRIP

BRANFORD Electric Railway Association announces a fantrip next Memorial Day week-end—a West Virginia short-line jamboree. The lines to be visited are the Buffalo Creek & Gauley, Elk River Coal & Lumber, a New York Central branch, and Cherry River Boom & Lumber.

This is probably the last time a trip can be taken over some of the roads mentioned. Total fare on those roads, including two free lunches, $15. One of the lunches will be served in the wrecking-train diner. Chartered bus will leave from New York City and Philadelphia; round trip fare, $20. Send $2 deposit with your request for reservation. Better do it now. Space is limited. Get further information from Vitaly V. Uzoff, agent, BERA, Inc., 314 Lathan Ro., Mineola, L. I., N. Y.

RAILROADIANA

ITEMS sent to this department are printed free, in good faith, but without guarantee. Write plainly. No entry longer than 28 words will be accepted—except those dealing with back numbers of this magazine. Address Sy Reich, *Railroad Magazine*, 205 E. 42nd Street, New York 17, N. Y.

Use abbreviations. For example, the term *tts.*, refers to public timetables, unless preceded by *emp.*, when it means employe's (operating) timetables.

Anyone desiring railfan pen pals is entitled to a listing here. State what phases of railroading interest you most and from whom you want to hear.

Because of the time it takes to edit, print, and distribute this magazine, the following section closes about ten weeks before it appears on the newsstands.

SWITCH LIST

JOHN AARDEMA, 114 16th Ave., Paterson, N. J., wants RF&P steam loco class designations, also detailed roster data on Mallets bought from C&O (Nos. 1, 2, 3).

R. ALBERTSEN, 5206 6th Ave., Brooklyn, N. Y., sells tts., emp. tts., frt. tts., pix, rr. literature, maps. Send for list.

CHAS. ALIEN, 441 Lightfoot Rd., Louisville, Ky., buys steam color slides NYC, DL&W, PRR, NH, SOU, RF&P, C&O; also Loco Cyclopedia before '38.

BOB ANDERSON, 715 Pabst, Ironwood, Mich., sells, trades pix, negs, size 3½x5 Minn., Wis., Mich. areas.

DICK AULETTA, 154 Strattford Rd., New Hyde Pk., N. Y., wants info. pix tts. BRT trolleys, els.

LEN BABER, 238 Roxbury St., Clifton Forge, Va., wants original 35mm steam slides C&O, AT&SF. write first.

RALPH BACK, 900 W. Grand Ave., Muskegon, Mich., has GTW steam 35 mm color slides to trade for steam from any N. Amer. road.

H. V. BEDWELL, Jr., 45 Madison Ave., Mt. Holly, N. J., sells 3x5, 4x5 steam pix PRR, others.

H. E. BENNETT, Jr., 1804 N. Mount St., Baltimore, Md., wants pix PRR locos FF-2, E-2b, E-3b, E-2c, CSS&SB ex-NYC elec.

W. H. BIESECKER, 2263 Lafayette St., North Bellmore, N. Y., wants 7-in. loco, LIRR passes; sells tokens. No list.

BRUCE BLACK, 3753 Margate Rd., Pittsburgh, Pa., (note new address) now out of Army; will sell size 616 Ansco f6.3 lens camera, $16; sells, trades size 616 negs. No list.

GEO. BOLLINGER, 1-1 Garden Terrace, North Arlington, N. J., sells steam, diesel, elec. pix PRR, CNJ, NYS&W, Erie, N.J. short lines, 10c ea. Trades for DL&W steam.

HARRY BRITTON, Rte. 3, Urbana, O., will buy park-size steam loco, cars, track.

SID BOYD, 1107 Grant St., Ashland, O., will buy single copy Off. Guide '50-'20.

W. BROSCHART, 132 E. Marie St., Hicksville, N. Y., will buy trolley pix, negs. Duluth, Flint, Salt Lake City, Peoria, Kenosha, Rockford, etc.

H. BUCKLEY, Jr., Box 203, Silver Springs, Md., wants negs. B&O, PRR, WM steam, diesels, any size.

BURDELL BULGRIN, c/o Flay Smith, 3500 N. Greenview, Chicago, Ill., wants action shots SOO, DMIR; also trade pix for inspection reports.

ED BUTTLING, Jr., 72 Lebkamp Ave., Huntington, N. Y., sells tts., emp. tts., steam pix. Wants color slides steam, interurban. List for 3c stamp.

JIM CALLAHAN, V.A. Hospital, Ward F324, Oteen, N. C., will buy back issues of B. of R.T., B. of L.E. mags. Write first.

H. C. CARPENTER, 2880 Erie Ave., Cincinnati, O., sells Off. Guides, emp. tts., maps, books, calendars, Railroad Magazine, passes, waybills. List for 6c stamp.

BILL CARRUTHERS, 405 Belsize Dr., Toronto, Ont., Canada, trades negs., size 616, 620, trolleys, subways, diesels, RDC's for steam.

HERB CEARLEY, 706 W. Caldwell, Compton, Calif., sells 35 mm Kodachrome originals of LATL, PE trolleys, eqpmt., 35c ea. Also buys. List for 3c stamp.

CHAS. CHALOUX, 677 E. 231 St., Bronx, N. Y., sells, trades 3rd Ave. Ry. negs; wants NYC trolley pix.

HENRY CHILDERS, Box 145, Union Mills, Ind., buys, sells, trades emp. tts. List for 3c stamp.

JOHN COOKE, 39 Wallace St., Herne Bay, Auckland, New Zealand, sells 8x6 steam pix n.g. NZGR. Write for details.

JOE COURT, Box 12, Scone, N. S. W., Australia, will trade S. Aust. loco pix for Railroad Magazine before Oct. '56.

F. W. CRAANDYK has new address: No. 2 Sunleigh Court, 64 Celliers St., Sunnyside, Pretoria, South Africa.

OWEN DAVIES, 1214 LaSalle St., Chicago, Ill., sells old Railroad Magazines, Trains, railroadiana. Big list free.

RON De GRAW, 83 S. Harwood Ave., Upper Darby, Pa., wants LVT roster.

DAVE DEVAULT, 1365 Watauga St., Kingsport, Tenn., wants 35mm color slides Clinchfield steam.

ED DE VITO, c/o F. M. H. Harris, Hoerle Blvd., Torrington, Conn., wants loco negs., New England rrs.; sells hand-printed 5x7 photo calendar.

GEO. EDGAR, 340 Ramepo Valley Rd., Mahway, N. Y., wants 1928 Off. Guide.

G. J. FALTICO, 3130 Rosamond, Spokane, Wash., buys and trades negs., pix, steam GN, NP, UP, SP&S, Milw. List for 3c stamp.

R. J. FOSTER, 304 Alma St., O'Fallon, Ill., sells p.c., 116 size steam negs.

BOB FREMMING, Box 147, Dallas, Wis., sells rr. postcards.

M. P. GANEY, 1301 N. Penn, Indianapolis, Ind., offers 3000 annual rr. passes, 1858-1920, 17c to $3.50 ea. No Western rd.

DICK GIBBONS, 117 Bacon St., Natick, Mass., trades steam loco class diagrams and books, any US road.

W. A. GRIMM (rr. towerman), 204 Gregory Ave., West Orange, N. J., will buy East Broad Top pix, also brass switch keys, any road.

F. L. HAMMONTREE, 101 N. Osage St., Independence, Mo., will buy telegraph resonator (box sounder) and switchman's oil lantern.

LARRY HANSEN, 3215 Q St., St. Eureka, Calif., trades pix, p.c.'s, maps, etc. Wants railfan pen pals over 17.

GRAHAME HARDY, Carson City, Nevada, sells old issues of Railroad Magazine, Trains, rr. books, other railroadiana. Big list free.

JIM HICKS, 4704 Vineta, La Canada, Calif., selling huge collection of rr. books and relics, Old West travel books, etc. Big list for stamped env.

WM. HOFFMAN II, 326 S. East Ave., Baltimore, Md., sells 4x5 steam pix PRR, B&O, WMd, etc. (Price?—Ed.)

DAVE HOLWAY, 46 Hope St., Attleboro, Mass., sells stea mand diesel pix B&M, NH, CV; also negs. B&M, CV. List and sample pic, 15c.

TOM HURST, 3364 Washington St., San Francisco, Calif., wants switch keys; trades tts., literature, other keys.

J. C. ILLMAN, 7400 Errol Dr., El Cerrito, Calif., trades, sells emp. tts. Off. Guides, '49-'57, $1-$1.50 ea. Railroad Magazine Mar. '54, Oct. '56, 25c ea., good cond.

BOB JACKSON, 14 Circuit St., Roxbury, Mass., sells tts., pix size 8x10, 3x8; blueprints, mags., etc. List, 10c.

ARNOLD JOSEPH, 2512 Tratman Ave., New York, N. Y., sells back issues Railroad, Trains, other mags. Lists for stamped env.

RALPH KERCHUM, 4350 Brdigeview Drive, Oakland Calif., wants Kodachrome 35mm slide duplicates of SP elec. pre-bridge and IER bridge operation. Price no object.

PETE KOHN, 6807 Park Hts. Ave., Baltimore, Md., will sell Railroad Magazine '48-'50, Trains '48-'52.

OTTO KUHLER, KZ Ranch, Pine, Colo., sells mementos made from Colo. n.g. rails. Free folder.

A. LAPRESTO, 128 Race St., Elizabeth, N. J., will sell new trainman's uniform; takes pix NY area, size 122.

BOB LAW, Trailer City, Warrensburg, Mo., trades ticket stubs, tr. orders of 1894 for other old tr. orders.

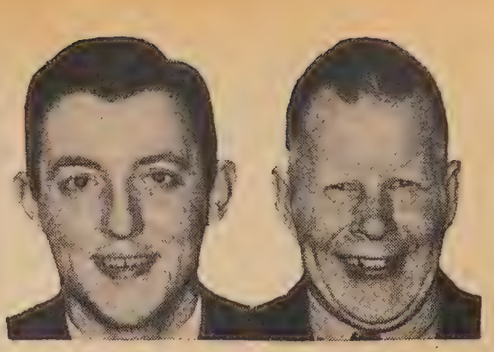
BURT LORING, Rte. 5, Brainerd, Minn., sells loco pix sizes 120, 116, 120, GN, NP, CPR, CNR, IC, etc., 10c ea. Railroad Magazine, Feb. '44 thru Dec. '46, 20c ea.

R. D. MACARTHUR,, Box 248, Yucaipa, Calif., sells old issues Railroad Magazine, model mags., other mags., books; fair cond.

AL MAGARY, Box 484, Phillips Exeter Acad., Exeter, N. H., buys emp. tts., off. Guides. Send list.

AL MALACK, 10530 Edbrooke Ave., Chicago, Ill., sells rr. mags. Free list.

J. M. MALONE, Jr., 3812 N. Alta Vista Ter., Chicago, Ill., wants info. on Munich, Kiev, Budapest subway projects.



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JACK MANLEY, 210 Ave. C, Snohomish, Wash., will buy Harry Bedwell's book, 'The Boomer'.

M. D. MEYER, 238 W. Water St., Brillion, Wis., sells 3½-5¾ CRANDIC and WCF&I pix.

JOE M'MAHON, 15 Adrian Ave., New York, N. Y., sells tts.; emp. tts., Off. Guides Trains. List for 3c stamp.

L. D. MOORE, Jr., 2102 Parker Ave., Portsmouth, Va., sells and trades sizes 616, p.c., 4x5 pix, negs. steam, elec.; also books and mags.

BILL MUCKER, 518-D E. Anapamu St., Santa Barbara, Calif., wants R&LHS Bulletin 52, 57.

JOHN MURPHY, RFD 3, Bowling Green, O., will sell 48 issues Railroad Magazine '38-'42 $7.20. (What cond., John?-Ed.)

R. V. NIXON, Rte. 4, W. Rattlesnake, Missoula, Mont., sells size 616 negs. NP steam locos.

IRENE NOLON, 4345 Burns Ave., Los Angeles, Calif., will buy pix logging cog-wheel Shay at Hobart Mills, Calif.

BOB OLIPHANT, 35 Overlook Dr., Golf, Ill., sells pix, slides, elec. rrs. List, sample print 10c. List, sample color slide, 35c.

R. J. PARSONS, 4406 Berkshire Rd., Royal Oak, Mich., will sell Railroad Magazine good cond., Jun.-Dec. '40-'42, Mar.-Dec. '44-'45, Jul. '50, best offer.

ANDY PATRICK, 3541 E. 133 St., Cleveland, O., sells, trades steam negs. B&O, NKP, Cuyahoga Valley, N&W, CP, CN.

DICK PATTON, Box 573, Christainsburg, Va., sells p.c. size steam pix. List, sample 10c.

HOWARD PEDDLE, Rt. 1, Box 317, S. Range, Wis., wants Railroad Magazine, pix logging locos of upper Midwest.

RAY PELOT, 50 Arreba St., Martinez, Calif., seeks persons who will take 8mm colored movies in steam areas, esp. N&W. Will pay expenses. Write first.

REV. CHAS. POND, 10 S. Cherry St., Freeport, Ill., wants color pix, slides of elec. locos: Central Calif. Traction, Cornwall St. Ry., Oshawa, Tulsa-Sapulpa Union Elec.

JOHN POULSEN, Lafferty Block, Lethbridge, Alta., Canada, sells 11 size 616 CPR or CNR steam pix, $1. Swaps CPR tr. ords. for those of other roads.

J. H. PRICE, 15 Kingslynn Crescent, Upper Norwood, London, SE 19, England, sells large-scale city transit maps, Moscow, Leningrad, Budapest, $2 ea. (cash or international m.o. obtainable at any post offices).

Pvt. VINCENT RICE, US 51398871, Co. C, 17th Spec. Balt., 4th Train. Reg., Ft. Jackson, S. C., buys pix NY trolleys, suwbays, LIRR locos, rolling stock, structures.

GEO. RICHARDSON, 1992 Fairmont Blvd., Eugene, Ore., will sell 194 Railroad Magazine July '31 thru Feb. '52, excel. cond., unclipped, both covers, $50. Or 1931-'39, 50c ea.; 1940-'52, 40c ea.; plus postage.

DICK RYAN, 344 Forbes Ave., Tonawanda, N. Y., will sell two Erie loco markers wired for 110 volts $5 ea.; also tts., p.c.'s, pix.

DAVE SACKS, 277 Arnold Ave., N. Plainfield, N. J, sells emp. tts., good cond. List for stamped env.

DENNIS SCHMIDT, 714 W. Lexington Ave., Elkhart, Ind., buys any size steam, diesel negs. AC&Y, CG, D&M, CNJ, FEC, GB&W, L&NE, P&WV.

JIM SEFTON, 6358 Yucca, Los Angeles, Calif., wants SP steam pix, negs. size 116, 120 and other steam 4-6-2 and bigger.

DICK SHIDELER, Rte. 1, Box 160, Lathrop, Calif., wants size 120, 127, 616, p.c. SP steam negs. before '40.

W. W. SIMMS, 612 S. Reid, Pampa, Tex., buys trades rulebooks.

J. F. SMITH, 17638 Roosevelt, Homewood, Ill., will sell Railroad Magazine '44-'47; Mod. R'er '47-'51, semi-bound.

TOM TABER, III, Box 131, Wellsville, N. Y., wants construction nos. and info. on Climax locos east of Rockies.

TED TAETSCH, 14218 Garfield Ave., Lakewood, O., buys, sells, trades trolley pix, negs.

DICK TESCH, 6853 N. Northwest Hy., Chicago, Ill., will trade tram pix with European and S. American railfans.

J. D. VAN TESLAAR, 224 E. 38th St., New York City, wants info. on private rr. parlor cars available for purchase.

FRANK VOLLHARDT, Jr., 2435 Mahoning Ave., Warren, O., wants any size steam pix B&O, P&LE, Y&S, P&W, ONT, AC; also early B&O rosters.

A. VON BLON, Box 122, BU sta., Waco, Texas, will sell or trade city directory of St. Joseph, Mo., 1878, A. C. McClurg & Co. Catalog 1903-04.

TED VON EIFF, Jr., 2101 Erdman Ave., Baltimore, Md., sells, trades pix BTC, San Francisco trolleys and cable cars, LATL.

R. E. WAGNER, 209 E. 66 St., New York, N. Y., wants builder's plates, trolley, interubans, rr. coaches.

SID WALKER, 1148 Holland St., Crum Lynne, Pa., selling man yelec., steam items. Info. for stamped env.

DAVE WALTER, 413 Lawrence Rd., Havertown, Pa., wants trolley pix LVT, PTC, P&W, PST, etc.; also pen pal 13 or 14.

A. R. WARD, 71 Chadwick St., Paterson, N. J., wants pix NYC trolleys, PSNJ, Conn. Co., any size. Has pix US, Canada trolleys for sale or trade.

MARVIN WEISS, P.O. Box 1, Metropolitan Station, Brooklyn 6, N. Y., sells transfers from big U.S. cities. Write for list.

W. WILK, Box 5424, Milw. Jct. Sta., Detroit, Mich., wants pix caboose, hopper cars, work trs.

WALT WRIGHT, 100 University Terr., Athens, O., trades PRR emp. tt. 30th St. and Sub. Sta., 8½ x 32 for sta. emp. tts.

W. H. YOUNG, 3053 Admirals Rd., Victoria, B. C., Canada, wants pen pal. Interested in trolleys, Toronto and Ottawa area.

MODEL TRADING POST

G. R. BARFOOT, 2037 N. Central Ave., Phoenix, Ariz., wants 16" gage loco, rolling stock.

GEO. BLAKE, Mountainside Dr. RD 1, Chatham, N. J., will sell HO gage equip. List for stamped env.

C. W. K. FRASER, Box 11, Cookshire, Que., Canada, will buy Lionel O gage Flying Yankee or UP streamliner.

JOHN HARRIS, 3130 V St., Sacramento, Calif., will sell Lionel 2 locos, 12 cars, 48 ft. track, 2 pr. 022, transformer. Best offer over $100.

R. G. HARTWICK, 25 2nd St., Haverstraw, N. Y., trade O gage Lionel for HO gage. List for 3c stamp.

C. KOWAL, 2743 W. 55th St., Chicago, Ill., will trade K&D Porter Battery Motor No. 4 about 53 yrs. old, excellent cond. Wants Ives No. 3241 or offer.

E. LARSON, Box 275, Rte. 3, Cedar Lake, Ind., will sell Ives No. 11 clockwork engine, tender, baggage, two passenger cars, good cond., $32.

L. D. MOORE, Jr., 2102 Parker Ave., Portsmouth, Va., wants Buddy L caboose, std. gage AF President series pass. cars.

JIM MURRAY, 31 Mt. Pleasant Ave., Belleville, N. J., will buy low-pressure K-4s sounding steam whistle for 1½-in. scale mdl.

O. A. PARRIS, 1019 13th St., Bremerton, Wash., wants Scalecraft 00 gage Vanderbilt tender, Nason consolidation, tender and Pennsy M-1a sand cast boiler.

AL PORTOGALLO, 1673 56 St., Brooklyn, N. Y., will sell Lionel scale Hudson 2-rail, 2- and 3- rail frt. cars, 3-rail locos.

E. J. SCHEFFLER, 167 Phelps Ave., Englewood, N. J., will sell Lionel cars, accessories, excel. cond. List for 3c stamp.

A/2C JOE STARK, 2046 AACS, CMR, Box 276, Wright Patterson AFB, O., will sell HO gage Hobbytown Alco A unit, runs perfectly, $12 or trade Penn Line K-4.

LES TUTTLE, Box 98, Rural Hall, N. C., will sell HO gage yard switchers, other items. List for 3c stamp.

NEW RAIL RECORDINGS

SONGS OF THE RAILROAD is a new Cabot-503 long-play high-fidelity recording by the Merrill Jay Singers, with arrangements by Jimmy Leyden in collaboration with Merrill Jay. These American songs and ballads stem mostly from the Golden Age of Railroading, between 1870 and 1910. They take us back to the period when the railroad hummed with expansive energy and strong men worked for it proudly. New lines were being built. We hear the clang of ponderous spike mauls. We hear flanged wheels rolling over the twin ribbons of steel. We hear the haunting engine whistles and bells.

The railway folksongs of that era have a primitive quality. They're a crazy-quilt of fun and toil, triumph and disaster, and the universal love-hunger.

These recordings cover the bygone days when life on the roaring road was an adventure; when farm lads hoeing corn or trudging the white dusty lanes to district school waved at passing trains and dreamed of the time when they, too, would swing aboard as rail-faring men and discover what lay beyond the highest hill.

The album contains 16 songs—some old favorites, a few we were not familiar with. We like especially *John Henry, Big Rock Candy Mountains, Lulu, The Wabash Cannonball, Wreck of the Old* 97, and *A Railroader's Bride I'll Be.*

Songs of the Railroad is a 12-inch LP album issued by Cabot Music Corp., 116 Central Park West, New York City, at $3.98. The album's cover picture is a steam engine in color, with a white cloud of coal-smoke floating skyward. It was painted by Elizabeth Tone.

SOUNDS OF STEAM RAILROADING, a new long-play high-fidelity recording was heard for the first time at the NRHS convention in Roanoke, Va.

Made by O. Winston Link along the Norfolk & Western, it offers in its nine sequences sounds which range from the ghostlike workings of a train in the Virginia hills to the call of an oldtime depot announcer and the pandemonium of a Mallet blasting past the microphone. Also the lonely sounds of chime and freight whistles, a passenger train arriving and leaving a way station, and a hotshot freight shifting at a junction.

Link's recordings were made over a two-year period. He set up shop beside the rails winter and summer, night and day, to expose thousands of feet of tape to the noises of steam. The best were edited into this record, which plays 45 minutes. Primarily a photographer, Link has adorned the album with pictures of every train recorded.

The album includes a wide variety of sounds. There are crossing bells, couplers meeting, brakes releasing, air pumping. In the night sequences a background of crickets and small-town noises lends authenticity. The recording is of real trains going about their chores, not of locomotives set up for the purpose. It is the finest recording of its kind we have ever heard.

Sounds of Steam Railroading is a 12-inch LP, 33⅓ rpm Hi Fi cut by a special process which permits the exceptionally loud passages made by a huge working locomotive as it bears down on the listener. It can be obtained at $4.95 from O. Winston Link, 58 E. 34th St., New York 16, N. Y. ●

FOR MODEL FANS

TWO major railroad presidents, James M. Symes of the Pennsy and Joseph A. Fisher of the Reading, assisted in driving a tiny golden spike that marked the opening of the new 1000-foot Pennreading model layout in the Railroad Room of the Franklin Institute at Benj. Franklin Parkway and 20th St., Philadelphia, Pa. This is a permanent HO-gage exhibit open to the public. It took two years to build.

The Pennsy and the Reading jointly contribute to building and maintaining the layout, which covers an area 40 feet by 15 feet and features nearly 400 locomotives and cars.

It also boasts authentic landscaping, more than 100 signals, 140 switches and crossovers, an automatic hump yard, 250 buildings, 17 bridges, 20 tunnels, harbor facilities, and probably the world's best model control system.

This system permits the first all-automatic installation of speed regulation of any model railroad built to date. It maintains, electronically, pre-established and contact speeds on grades and straightway track, regardless of the train's weight or length. When trains approach or leave restrictive signals they gradually decelerate or accelerate, as with real railroads. All of the Pennreading's 27 trains have progressive cab control, unlike most model layouts where track is controlled by sections. ●

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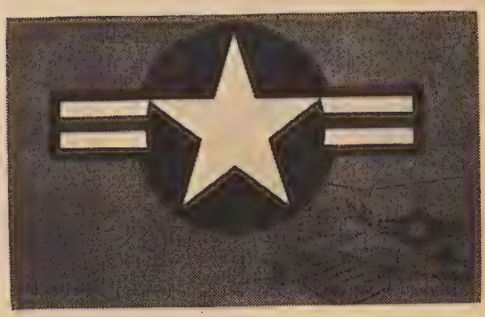
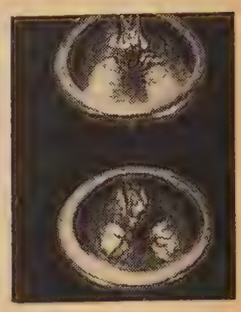


Air Force vets will recognize this giant (5½ ft. x 3 ft.) insignia which has been mounted on thousands of planes. Strong, and with the feel of oilcloth, they cost the government some $18 each. Fine to decorate your boy's room, basement, den or game room. New surplus. Just $2 ppd. Kline's, 329 East 65th Street, New York City, New York.



One of the easiest and least expensive ways to recondition your car's engine is to drop a pair of these Motaloy tabs in your fuel tank. You'll get increased compression and a ring and valve job as Motaloy replates worn engine parts. Increases mileage, cuts oil-burning. $6 ppd., Olson Co., Dept. A-S, Texas Bldg., San Antonio, Texas.

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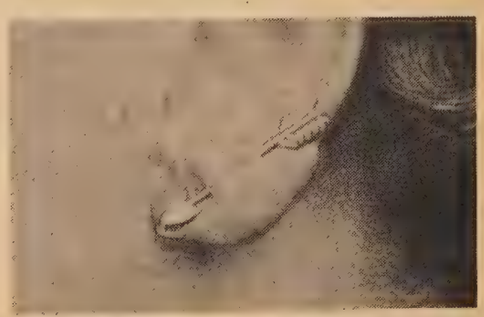

Eye-catching is the word for these unique earrings which look as if the arrowhead has actually pierced the ear-lobe. A screw behind the 1-inch arrow helps create the illusion. Available in sterling silver or 18-kt. gold plate at $2 ppd., or in copper, $1 ppd. Order from Old Pueblo Traders, Box 4035, Dept. AM, Tucson, Ariz.

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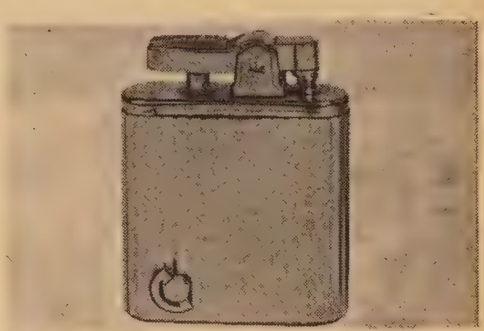

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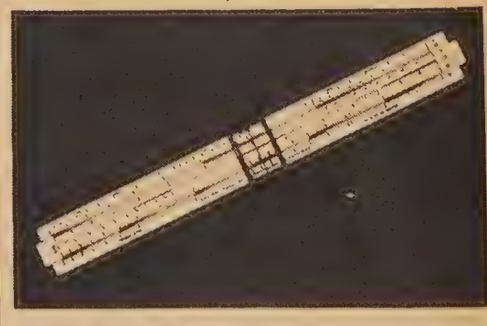

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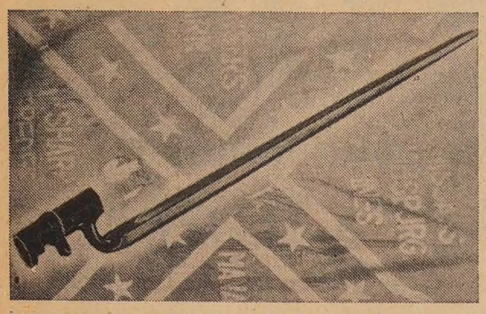
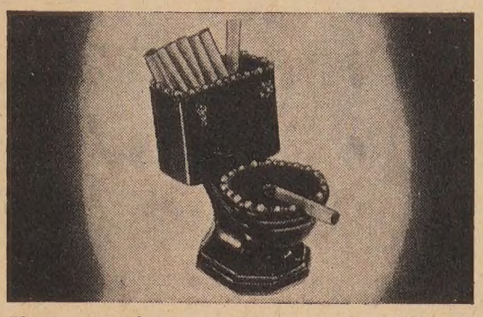
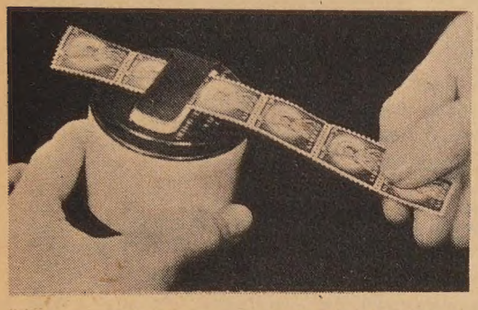


If there's a spark of chivalry in your bones, you'll be moved by the fact that this is one of a dwindling supply of authentic Confederate bayonets. In remarkably fine condition (some in original grease), bayonets are triangular, measure 21". $3.95 ppd. (Same for Yankees). Lincoln Products, 411-A Lincoln Building, New York City 17, N. Y.



If you must have an ash tray in the bathroom, what could be better than this little black beauty? It's obviously shaped for the job, hangs on the wall, is decorated (by hand, yet) with simulated pearls and rhinestones. Fills a need. Pretty fancy for $2.95 ppd, from Prince Enterprises, 305-A Madison Avenue, New York 17, New York.



Take the stickiness out of affixing stamps and labels with this Compact Moistener that also seals up to 700 envelopes in an hour. Moistens shipping labels and any other gummed paper products. Sturdily constructed of plastic with large water reservoir. Takes any size envelope. $1 ppd., Nifty Sealer, Box 59-I, Lynn, Mass.

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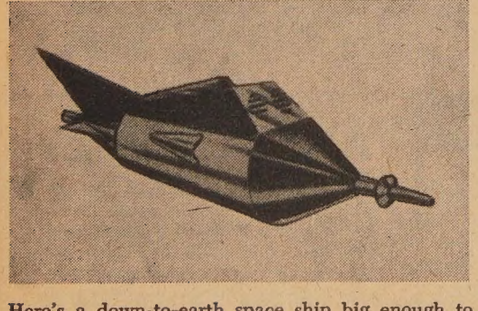

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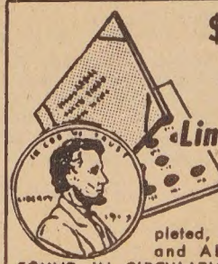

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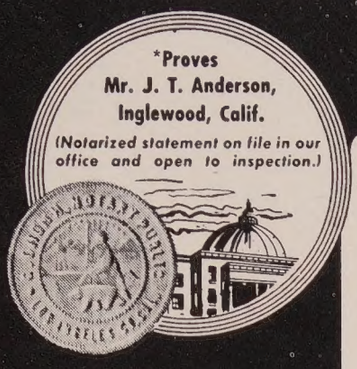

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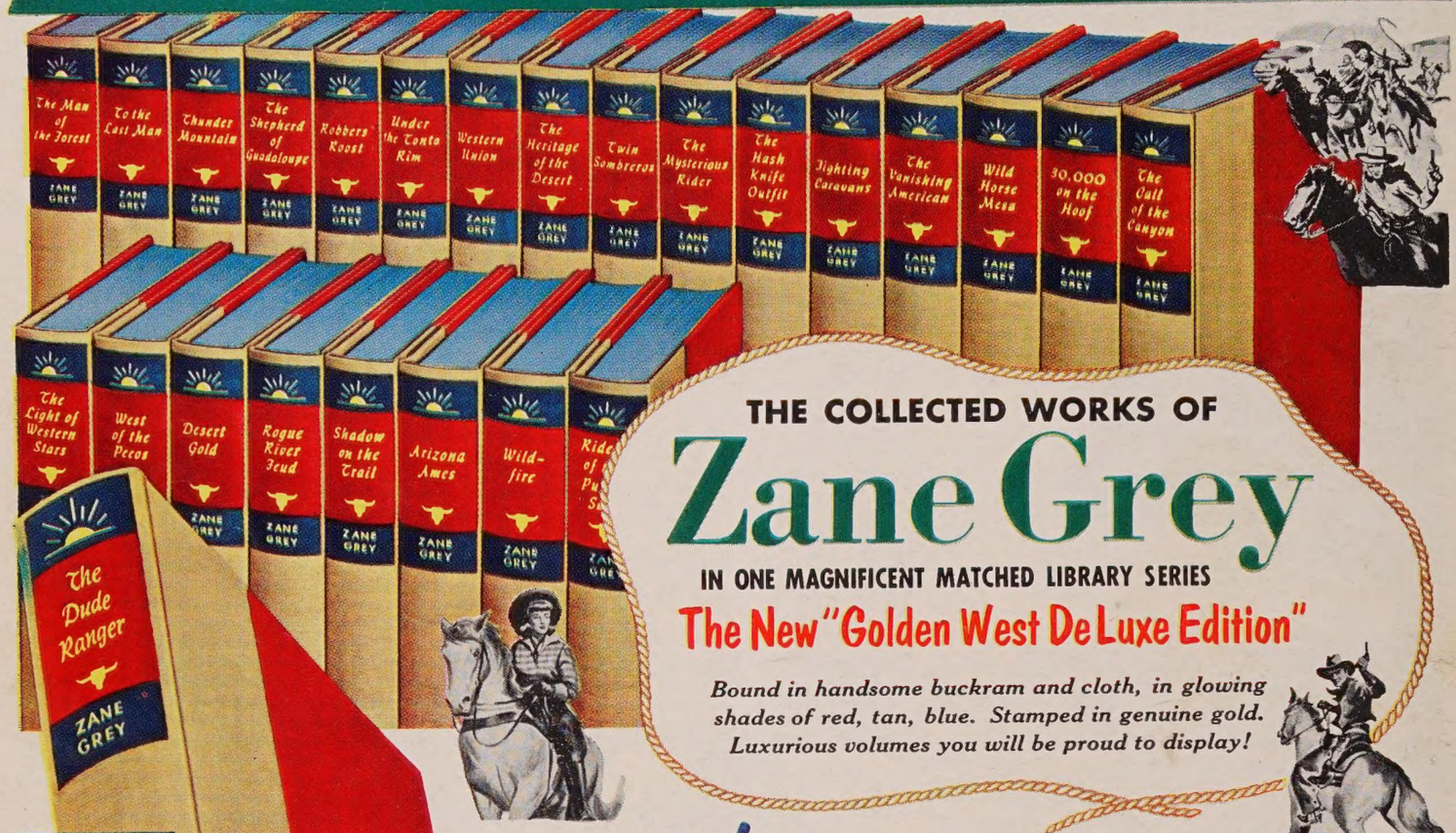

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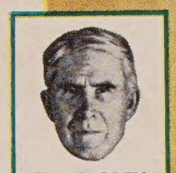

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